Chapter 3

Winter Battles, 1941—42

The Russo-German War entered its second major phase in December 1941. During the previous five months, the Germans had held the strategic initiative, but on 6 December, the Red Army seized the initiative, counterattacking first against Army Group Center and later against all three German army groups (see map 5). Lasting through the end of February, these attacks upset the calculations of Führer Directive 39, which had assumed that the front would remain quiescent until the following spring.

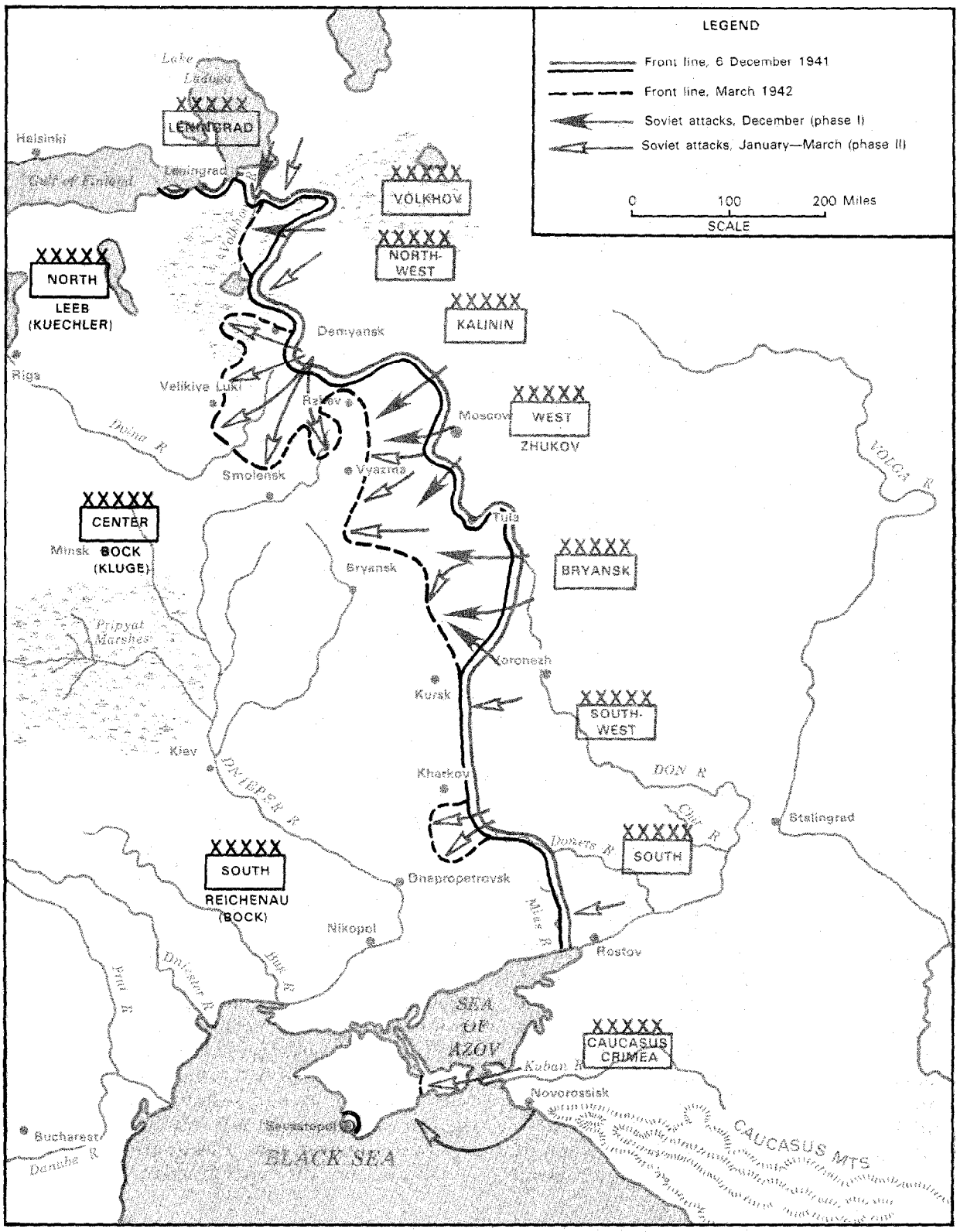
The Soviet winter counteroffensives prompted significant changes to German strategy and tactical methods. These alterations emerged during the winter fighting and helped shape the German defensive practices that were used throughout the remainder of the war.

At the strategic level, the December crisis on the Eastern Front caused Hitler to override his military advisers' recommendations by enjoining a face-saving no-retreat policy that callously risked the annihilation of entire German armies. His patience with independent-minded officers finally at an end, the German dictator then followed this strategic injunction with a purge of the German Army's senior officer corps that left the Führer in direct, daily control of all German military activities. These events had ominous long-term implications in that Hitler's personal command rigidity, together with his chronic insistence on "no retreat" in defensive situations, eventually corrupted both the style and substance of German military operations.

The winter of 1941—42 left its mark on German defensive tactics as well. During the defensive battles from December to February, German attempts to conduct a doctrinal Elastic Defense were generally unsuccessful. Instead, German units gradually fell to battling Soviet attacks from a chain of static strongpoints. This defensive method was based on tactical expedience and was successful due as much to Soviet disorganization as to German steadfastness.

Standing Fast

The German High Command was slow to appreciate the magnitude of the Soviet winter counteroffensive. For weeks prior to the Russian onslaught, German units had been reporting incessant enemy counterattacks during their own drive toward Moscow. So routine had these counterattacks become that German analysts failed to recognize immediately the Russian shift from local counterattacks to a general counteroffensive. Since the Germans had seemingly ruled out large-scale offensive operations for themselves due to heavy losses, supply difficulties, and severe weather conditions, they supposed the Russians would do the same. In fact, the intelligence annex supporting Führer Directive



Map 5. Soviet winter counteroffensives, December 1941—March 1942

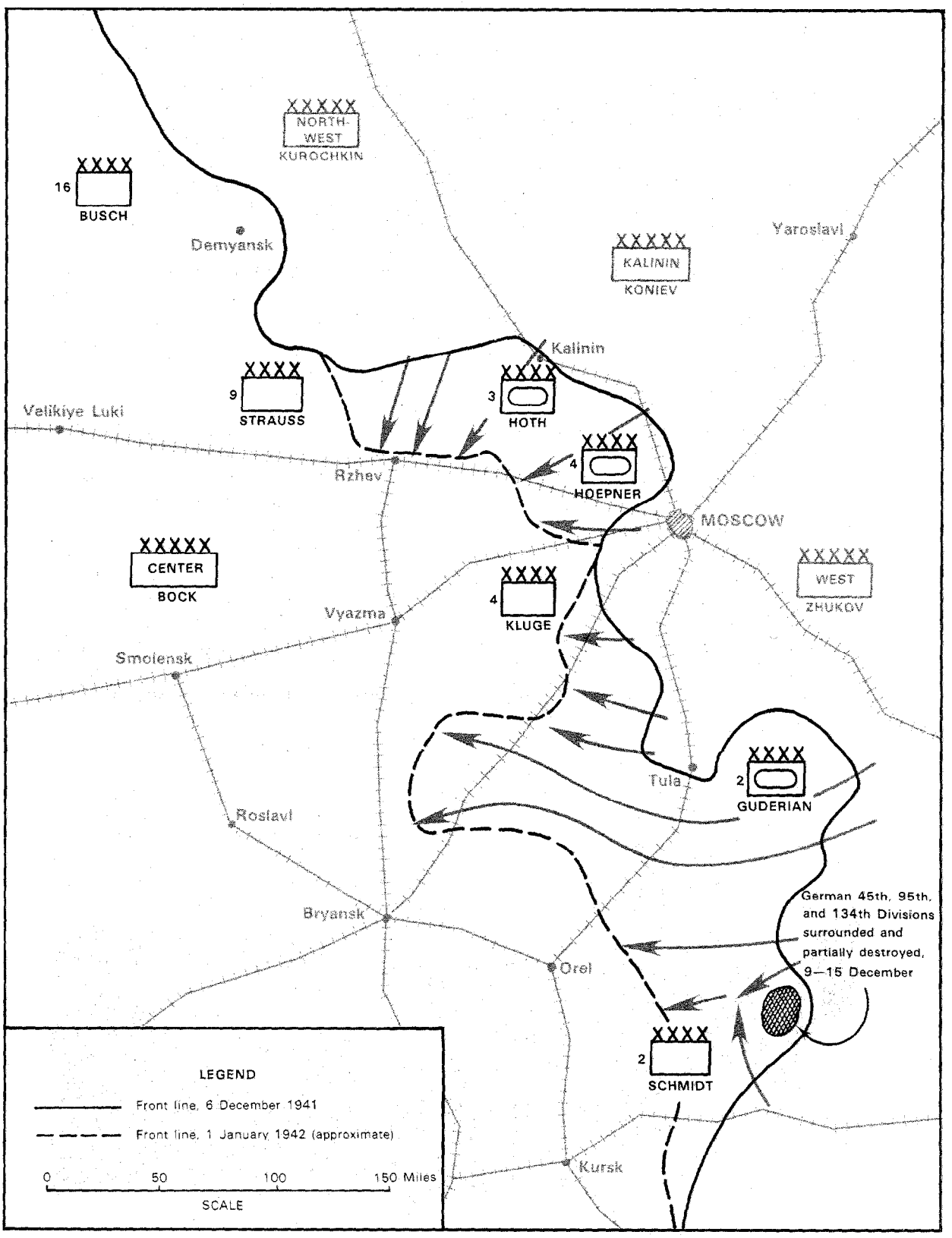
39 discounted the Red Army's ability to mount more than limited attacks during the coming winter.[1]

High-level German leaders also underestimated the abject weakness of their own units. The Taifun offensive had overextended the German armies in the east, and their spent divisions lay scattered like beached flotsam from Leningrad to Rostov. As a discouraged General Guderian wrote on 8 December: "We are faced with the sad fact that the Supreme Command has overreached itself by refusing to believe our reports of the increasing weakness of the troops. . . . [I have decided] to withdraw to a previously selected and relatively short line which I hope that I shall be able to hold with what is left of my forces. The Russians are pursuing us closely and we must expect misfortunes to occur."[2]

The greatest immediate danger loomed on Army Group Center's front (see map 6). Committed to offensive action until swamped by the Soviet counterblow, the divisions of Field Marshal von Bock's army group had prepared few real defensive works. On 8 December—the same day that Guderian on his own initiative had ordered his Second Panzer Army to begin withdrawing—Bock assessed that his army group was incapable of stopping a strong counteroffensive.[3] The most exposed forces were the 3d and 4th Panzer Groups north of Moscow and Guderian's Second Panzer Army south of the Russian capital. Occupying salients formed during Operation Taifun, these exposed panzer and motorized divisions experienced a cruel reversal. Once again, offensive success had turned into defensive peril for the panzers, as the formations most heavily beset by Soviet attacks were also those least able to sustain a positional defense.

Caught off balance by the Soviet counteroffensive, the Germans lacked any real concept for dealing with the deteriorating situation on the central front. The chief of the German Army General Staff wrote in his diary that "the Supreme Command [Hitler] does not realize the condition our troops are in and indulges in paltry patchwork where only big decisions could help. One of the decisions that should be taken is the withdrawal of Army Group Center. . . ."[4] Still smarting from Army Group South's earlier abandonment of Rostov, however, Hitler was unwilling to countenance any such retreat. Instead, German countermeasures during the first two weeks of the Russian offensive were reminiscent of the frantic half measures taken during the summer defensive crises at Yelnya and Toropets: minor local withdrawals and piecemeal attempts to contain Soviet breakthroughs. For example, the hasty withdrawal of Second Panzer Army's beleaguered divisions from the area east of Tula was done on Guderian's own initiative and not as part of a coordinated general plan.

Although these measures reduced the immediate likelihood that exposed units would be cut off and destroyed, the fundamental German strategic problem was not addressed. The thin lines of exhausted German troops seemed to be on the verge of collapse, few reinforcements were available, and puny local countermeasures merely invited greater danger. For instance, even as Guderian's forces were recoiling from Tula, gaps opened between his units, and sizable Russian forces poured into the German rear.[5] Then, between 9 and 15 December, a massive Soviet attack on Guderian's right flank overran and virtually annihilated the German Second Army's 45th, 95th, and 134th



Map 6. Soviet attacks against Army Group Center, December 1941

Infantry Divisions.[6] This complete destruction of German divisions was unprecedented in World War II and an unmistakable omen of impending disaster. By the third week of December, deep Soviet penetrations on both flanks of Bock's army group threatened to ripen into a double envelopment of the entire German central front. After touring the splintered German lines, ailing Field Marshal von Brauchitsch confessed to Halder that he could "not see any way of extricating the Army from its present predicament."[7]

In fact, only two alternatives offered an escape from the deepening crisis. One choice was to conduct an immediate large-scale withdrawal, trusting that German forces could consolidate a rearward defensive line before Soviet pursuit could inflict decisive losses. The other choice was to stand fast and weather the Soviet attacks in present positions. Neither course of action guaranteed success, and each was fraught with considerable risk.

A winter retreat would cost the Germans much of their artillery and heavy equipment, which would have to be abandoned for lack of transport. Because of Hitler's procrastination in November, no rearward "east wall" defensive line had been prepared; therefore, a withdrawal promised little improvement over the tactical situation the Germans already faced.[8] Too, as already shown on Guderian's front south of Moscow, retrograde operations could easily lead to an even greater crisis if enemy units managed to thrust between the retreating German columns. Finally, a retreat through the Russian winter conjured up the shade of Napoleon's 1812 *Grande Armée*. Though morale in the depleted German divisions still remained generally intact despite the harsh conditions, German officers fearfully reminded each other of the sudden moral collapse that had turned the French retreat into a rout nearly a century and a half before.[9]

German equipment abandoned outside of Moscow

The alternative seemed even more desperate. A continued defense from present positions could succeed only if German defensive endurance exceeded Russian offensive endurance—a slim prospect considering the exhausted state of the German forces. The chances for success were best on the extreme northern and southern wings, where the Leningrad siege works and the Mius River line offered some protection. Between these two poles, however, a stand-fast defense would surely cost the Germans heavily. The absence of reserves and the lack of defensive depth ensured that some units would be overrun or isolated during the winter. Moreover, this course of action forfeited the possibility of a new German offensive in the central sector the following spring or early summer, since surviving German divisions of Army Group Center would require substantial rebuilding.

Conditioned by their professional training to weigh risks carefully and to conserve forces for future requirements, German commanders and staff officers preferred the potential dangers of a winter retreat to the certain perils of standing fast. Guderian, for example, regarded "a prompt and extensive withdrawal to a line where the terrain was suitable to the defense . . . [to be] the best and most economical way of rectifying the situation," while Brauchitsch and Halder agreed that "Army Group [Center] must be given discretion to fall back . . . as the situation requires."[10] In anticipation that this course of action would be followed, Russian civilians and German labor units were hurriedly pressed into work on a rearward defensive line running from Kursk through Orel to Gzhatsk.[11]

Once again, Adolf Hitler confounded the plans of his military advisers. Hitler watched the disintegration of the German front with great dismay and convinced himself that each retreat simply added momentum to the Soviet offensive. On 16 December, the German dictator telephoned Bock to order Army Group Center to cease all withdrawals and to defend its present positions. German soldiers would take "not one single step back." At a late night conference the same evening, Hitler extended the stand-fast order to the entire Eastern Front. A general withdrawal, he declared, was "out of the question."[12]

Hitler marshaled both real and fanciful arguments to justify his decision. Citing information collected by his personal adjutant, Colonel Rudolf Schmundt, Hitler ticked off the disadvantages of retreat: German units were sacrificing artillery and valuable equipment with each withdrawal, no prepared line existed to which German forces could expeditiously retire, and "the idea to prepare rear positions" amounted to "drivelling nonsense."[13] Furthermore, Hitler argued, attempts to create fallback positions weakened the resolve of the fighting forces by suggesting that current positions were expendable. All of these arguments were at least partially correct, even if senior military officers preferred to discount them.

However, Hitler's rationalizations went even further. Contrary to the visible evidence, Hitler insisted that the Russians were on the verge of collapse after suffering between 8 and 10 million military casualties. (This estimate exaggerated Soviet losses by almost 100 percent.) The Red Army artillery, he claimed, was so decimated by losses that it no longer existed as an effective arm—a claim for which there was no evidence whatsoever. Hitler asserted that the enemy's sole asset was the superior numbers of soldiers, an advantage of no real value since they were "not nearly as good as ours." In a strange

Hitler feared the loss of valuable equipment during a general winter retreat

twist of logic, Hitler even argued that the enormously wide frontages held by German divisions proved the enemy's weakness, since otherwise the Soviets would have exploited this vulnerability to a greater extent than they had already done. (Coming at a time when the entire German front was threatening to give way in the face of Soviet offensive pressure, this claim must have seemed totally outrageous.)[14]

One major factor that affected Hitler's decision went largely unspoken by the dictator. Tyrants, it is said, fear nothing so much as ridicule, and Adolf Hitler feared the embarrassment that retreat would cause to the Reich's—and to his own—military prestige. Moreover, on 11 December, Hitler had recklessly declared war on the United States, a move that unnecessarily compounded Germany's military problems. Under the circumstances, the spectacle of German armies in unseemly retreat before Russian *Untermenschen* (subhumans) would have been a serious blow to Hitler's credibility. Therefore, German soldiers were exhorted to "fanatical resistance" in place "without regard to flanks or rear."[15]

Having again rejected the recommendations of his military advisers, Hitler decided to rid himself once and for all of uncooperative senior officers. Not only would this end the tugs-of-war between Hitler and the Army High Command over military strategy, but it would satisfy Hitler's desire to curb the enduring independence of the German Army's officer corps as well.

Adolf Hitler had an irrational mistrust of the aristocratic, apolitical officers who held most of the high positions in the German Army. Their professional aloofness and political indifference had long irritated Hitler, who regarded them as obstacles to his own strategic visions and his personal

power. Since becoming chancellor in 1933, he had skillfully worked to curtail the army's independence. When the aged Weimar President von Hindenburg died in 1934, Hitler suborned an oath of personal loyalty from all members of the armed forces, a step that exceeded the doomed Weimar Republic's constitutional practice. In 1938, Hitler engineered the disgrace and removal of Field Marshal Werner von Blomberg and General Werner Freiherr von Fritsch, who were respectively the minister of war and commander in chief of the army. At that time, Hitler absorbed the duties of war minister into his own portfolio as Führer and created a new joint Armed Forces High Command (*OKW*), which diluted the traditional autonomy of the German Army. Hitler then staffed the senior *OKW* posts with sycophants like General (later Field Marshal) Wilhelm Keitel and General Alfred Jodl so that the *OKW* amounted to little more than an executive secretariat for Hitler and an operational impediment to the Army High Command (*OKH*). As his knowledge of military matters grew during the war, Hitler overruled with greater frequency and confidence the campaign advice of his army advisers. During Barbarossa, the army's resistance to Hitler's interference repeatedly antagonized the Führer, and so he resolved to purge troublesome officers.[16]

Field Marshal von Brauchitsch, the German Army's commander in chief, was among the first to follow Rundstedt into retirement. Weakened by a heart attack in November, Brauchitsch had neither the moral courage nor the physical strength to resist the Führer's trespasses. Hitler made no secret of his growing disdain for the ill field marshal, subjecting him to humiliating tongue-lashings and treating him openly as a gold-braided "messenger boy."[17] On 19 December, Hitler finally sacked Brauchitsch and took over the position of army commander in chief.

The timing of Brauchitsch's relief was masterful. Although not stated so officially, Brauchitsch was made the scapegoat for the failure of Barbarossa and for the winter crisis on the Eastern Front. Hitler himself propagated this view to his inner circle, referring to Brauchitsch as "a vain, cowardly wretch who could not even appraise the situation, much less master it. By his constant interference and consistent disobedience he completely spoiled the entire plan for the eastern campaign."[18]

Although Brauchitsch had been a weak and relatively ineffective army commander in chief, the real issue in his relief was not military competence but political loyalty and personal subservience. Lest this lesson be misunderstood, Hitler pointedly informed Halder that "this little affair of operational command is something that anybody can do. The Commander-in-Chief's job is to train the Army in the National Socialist idea, and I know of no general who could do that as I want it done. For that reason I've decided to take over command of the Army myself."[19]

As soon as Brauchitsch was out of the way, Hitler then turned his wrath on balky field commanders. With Hitler directly supervising their operations, frontline officers no longer enjoyed the insulation previously provided by Brauchitsch. Furthermore, with the Führer doubling as the army commander in chief, military subordination effectively became synonymous with political allegiance. Officers who too candidly criticized Hitler's strategic designs or commanders who took independent action at variance with Hitler's instructions were implicitly guilty of affronting the Führer's personal authority. Whereas

Two senior commanders relieved by Hitler: Field Marshal Walther von Brauchitsch (left), commander in chief of the German Army, and General Heinz Guderian (right), commander of the Second Panzer Army

during the war's earlier campaigns such independence might have gone unremarked or unchecked, henceforth such actions might lead to swift relief or even worse.

Hitler, bent on a personal vendetta against the German Army's leaders, was given ample opportunity to make examples of offending officers during the winter defensive crisis. Suffering from failing health, Field Marshal von Bock had already lost the Führer's confidence over Army Group Center's failure to storm Moscow. When Bock persisted in predicting disaster unless allowed to retreat, he was abruptly retired on 20 December. General Guderian evaded orders to stand fast because such actions would endanger his Second Panzer Army and, after a tense face-to-face meeting with Hitler on 20 December, was relieved from active duty on 26 December.[20] General Erich Hoepner, like Guderian an aggressive panzer leader, enraged Hitler in early January by ordering units of his Fourth Panzer Army* to retreat westward to avoid encirclement. Hoepner was summarily relieved of his command, and Hitler ordered that Hoepner be stripped of all rank and privileges, including the right to wear his uniform in retirement.[21] Strauss, the Ninth Army commander who had directed the German defense against Timoshenko's attacks in August and September, was cashiered a week after Hoepner for being overly pessimistic in his reports. Field Marshal von Leeb, the commander of Army Group North, found his prewar defensive theories swept aside by Hitler's insistence on a rigid defense. When Leeb explained that a dangerous and unnecessary

*Panzer Groups 3 and 4 were redesignated panzer armies on 1 January 1942.

salient near Demyansk should be abandoned to free badly needed reserves, Hitler countered by arguing that such salients were, in fact, beneficial since they tied down more Russian than German forces. Leeb, "being unable to subscribe to this novel theory," was thus relieved on 17 January.[22] Army and army group commanders were not Hitler's only targets. In fact, during the 1941—42 winter, he relieved more than thirty generals and other high-ranking officers who had been corps commanders, division commanders, and senior staff officers.[23]

Hitler also took other steps to secure control over the German Army. Disregarding seniority and even combat experience, Hitler elevated officers of unquestioning loyalty (such as General Walter Model) or officers of known Nazi sympathies (such as Field Marshal Walter von Reichenau) to senior positions. (Model replaced Strauss as commander of Ninth Army, while Reichenau succeeded Rundstedt at Army Group South. Reichenau's previous position as Sixth Army commander was filled by the loyal but unimaginative General Friedrich Paulus, an energetic staff officer whose unflinching obedience led to tragedy at Stalingrad a year later.) To ensure close future control over promotions and assignments, Hitler promoted Schmundt, his personal adjutant, to general and placed his former aide in charge of the army personnel office. In one further step to cement his authority, Hitler forbade voluntary resignations, thereby denying the German officer corps the traditional soldierly protest against unconscionable commands.[24]

While the removal of unruly senior officers made the German Army more docile, these turnovers adversely affected German military performance in three ways.

First, the cashiering of so many field commanders in the midst of desperate defensive fighting disrupted the continuity of German operations. The newly appointed leaders, who frequently brought with them new chiefs of staff, normally required an adjustment period before they could discharge their new duties with complete confidence. In fact, some of the replacements could not make the adjustment at all. General Ludwig Kübler, who replaced Field Marshal Günther von Kluge as Fourth Army commander when Kluge replaced Bock, found Hitler's stand-fast strategy intolerable and requested his own relief barely a month after assuming command.[25] The net effect of all this turmoil was to minimize bold initiatives at the front and to concede virtually all strategic and operational control to the Führer by default.

Second, by sweeping away those officers who had the temerity to challenge Hitler's strategic views, an important source of advice and assessment was silenced. For the remainder of the war, responsible criticism of the Führer's designs was muted by the threat of punishment. Therefore, for the next three years, German military strategy lurched from disaster to disaster due mainly to Hitler's having banished or intimidated into silence those whose courage, skill, and judgment best qualified them to act as independent advisers.

Finally, by removing so many senior leaders and by inserting himself into the chain of command as army commander in chief, Hitler profoundly altered the command philosophy of the German Army. For generations, commanders in the Prussian and German Armies had been schooled to direct

Hitler assumed personal command of the German Army in December 1941 and began interfering in the direction of combat operations

operations according to the principle of *Auftragstaktik*. This principle constrained commanders to giving broad, mission-oriented directives to their juniors, who were then allowed maximum latitude in accomplishing their assigned tasks. Senior leaders trusted implicitly in the professional discretion of their subordinates, and German operations characteristically evinced a degree of imagination, flexibility, and initiative matched by few other armies. So deeply ingrained was this philosophy that actions contrary to orders were seldom regarded as disobedience, but rather as laudable displays of initiative and aggressiveness. According to a German military aphorism, mules could be taught to obey but officers were expected to know when to disobey.[26]

Hitler's rigid and overbearing insistence on the literal execution of all orders corrupted *Auftragstaktik*. That Hitler, the "Bohemian corporal," did not understand this system or, more likely, that he had no patience for it was demonstrated early in the Barbarossa campaign. Halder diagnosed Hitler's leadership style as lacking "that confidence in the executive commands which is one of the most essential features of our command organization, and that is so because it fails to grasp the coordinating force that comes from the common schooling of our Leader Corps."[27]

The harm done to the German command philosophy was not confined to upper echelons only, however. Hitler's stifling, obedience-oriented style was transmitted throughout the German Army so that operations at all levels suf-

fered its stifling effects. Senior field commanders, themselves answerable to the implacable Führer, were thus pressed to control more closely the operations of their own subordinates. This corrosive process was abetted by two features of the World War II battlefield. The first was modern radio communications, which enabled senior commanders to direct even remote combat actions. This not only invited greater interference, but spawned timidity at lower levels by conditioning subordinates to seek ratification of their decisions from their superiors before acting. Second, the chronic lack of German reserve units—a circumstance particularly pervasive on the Eastern Front—reduced the ability of senior commanders to rectify the mistakes of subordinates and thus encouraged the centralization of battle direction at higher levels. As General Frido von Senger und Etterlin, a veteran of both the Russian and Mediterranean theaters, wrote after the war:

> Reserves enable the commander to preserve a measure of independence. He may feel obliged to report his decisions, but as long as his superior authority has his own reserves with which to influence the general situation, that authority will only be too ready to leave the subordinate commander to use his as he thinks best. If the forces shrink so much that these normal reserves are not available . . . then the forces so detailed are put at the disposal of the highest commander in the area, while the local commanders . . . can no longer expect to exert any decisive influence on the operations.[28]

German leaders were therefore driven to a more and more centralized style of command. Hitler's insistence on literal obedience restricted independence from above, while the lack of battlefield reserves reduced the latitude for initiative from below. The result was a decline in the flexibility that had been traditional in German armies for over a century.

Because real operational flexibility no longer existed in the German Army from the winter of 1941—42 onward, German defensive actions on the Russian battlefield were adversely affected. Hitler's orders to the German Army to stand fast established the framework of German defensive strategy. The cashiering of recalcitrant senior officers gave authority to that strategy and gradually narrowed the discretionary latitude of subordinate leaders to act independently. It remained for the combat units themselves, coping as best as they could with dreadful weather and a tough enemy, to give substance to the German defense.

Strongpoint Defense: Origins

At the tactical level, German defensive practice during the winter of 1941 was dictated by Hitler's stand-fast order, the appalling weakness of German units, and the harshness of the Russian winter weather. These three factors forced the Germans to use a defensive system that consisted mostly of a network of loosely connected strongpoints backed by local reserves. This strongpoint defense had no basis in prewar German doctrine and was, in fact, wholly improvised to fit the particular circumstances existing at the time. As the 197th Infantry Division reported at the end of the winter fighting: "A strongpoint-style deployment can only be an emergency expedient *(Notbehelf)*, especially against the combat methods of the Russians with their skill at penetration and infiltration. On the basis of his previous training, the German soldier is not disposed to a strongpoint-style defense."[29]

Although some Germans later represented the strongpoint defense as being a shrewd method of slowing a superior enemy by controlling road junctions, any such success was largely coincidental. The strongpoint defense was, first and foremost, a tactic of weakness. German commanders did not elect to fight from village-based strongpoints due to any cunning assessment of Soviet vulnerabilities. Rather, the German winter defense coagulated around towns because Hitler forbade voluntary withdrawals, because German divisions were too weak to hold a continuous line, and lastly, because the winter weather lashed at unprotected German units that tried to stand in the open.

When the German armies on the Eastern Front began defensive operations in early December, they did not expect an immediate major Soviet counteroffensive. Therefore, most German divisions deployed into a thin linear defense similar to that used by the Army Group Center units during the August and September defensive battles. Lacking the depth and reserves of a true Elastic Defense, this linear formation merely stretched German forward units into a semblance of a continuous defensive front. Such a tissue-thin deployment could only have served to prevent large-scale infiltration or, at the very best, to fend off local attacks. The 31st Infantry Division, holding a broad divisional sector southwest of Moscow, "had to return more or less to the old [pre-1917] Linear Tactics, and had to foresake a defensive deployment in depth" due to lack of forces. The division's main line of resistance consisted of a "thin string of infantry sentry posts, with large uncovered areas in between" and was held together chiefly by the fire from the 31st Division's few surviving artillery pieces. The artillery gun positions, fitted out as small infantry redoubts, provided the only defensive depth.[30]

The Soviet counteroffensive completely overwhelmed this flimsy German defensive line, and those German units not destroyed outright were swept rearward in a series of running battles against superior Red Army forces. The 31st Division, its own sector quiet until 14 December, had its front lines perforated on that date by several Soviet attacks. When the scratch German reserves failed to restore the division's front, the 31st Division, like most German units on the central portion of the Eastern Front, initiated a fighting withdrawal in the hope of reestablishing a linear defense farther to the rear.[31]

Pitifully weak in men and firepower and generally inferior to the Russians in winter cross-country mobility, the Germans found it difficult to break contact with the enemy and to slip across the frozen landscape unmolested. German infantry companies and battalions were so understrength that they could not be subdivided any further in order to create rearguards. Consequently, an entire battalion (scarcely amounting to a single undermanned rifle company in most cases) commonly had to remain in place to cover the remainder of a regiment as it withdrew. The outlook for these rearguards was grim: "[The rearguard carried] the large burden of the fighting. Frequently they had to stop and delay the pursuing enemy, while other Russian elements were already attacking their flanks or rear. Then they had to fight their way out, or pass through the enemy lines at night to join their own forces."[32] Needless to say, many rearguard detachments were swallowed whole by the advancing Soviets.

Even with the occasional sacrifice of the rearguards, units clambering rearward over the snowy wastes remained extremely vulnerable to attack or

ambush by fast-moving Soviet pursuit columns. During a withdrawal, one battalion of the 289th Infantry Regiment (98th Division) was attacked by Soviet forces and nearly annihilated, losing all of its antitank weapons and machine guns.[33] To protect itself from such peril, the 35th Infantry Division put its engineers to work blasting hasty defensive positions into the frozen ground along proposed withdrawal routes in order to provide emergency cover during retreats. However, on occasion, this action backfired, as when Soviet cavalry and ski troops slipped into the German rear, occupied the intermediate positions, and raked the approaching Germans with deadly small-arms fire.[34] Seemingly beset by relentless Red Army forces from all sides, many German units began to exhibit an acute fear of being encircled or outflanked.[35]

Soviet tanks posed the greatest threat to the retreating Germans. The Russian T-34s had excellent cross-country mobility and had little to fear from German light antitank weapons. The few heavy guns that the Germans still possessed tended to wallow helplessly in the deep snow, unable to deploy or to engage the Russian armor.[36] German officers noted that epidemics of tank fear were again afflicting entire units, and local withdrawals sometimes turned into headlong, panic-stricken flight at the first appearance of Soviet tanks.[37] Though kept well in hand by their own leaders, retreating soldiers of the 31st Division passed telltale evidence of disintegration in other units: quantities of artillery, engineering equipment, supplies, and motor vehicles all abandoned in place by fleeing German forces.[38]

Standing fast: German infantry occupying a thin defensive line in snow trenches during the 1941—42 winter. The weapon in the revetment is a 20-mm flak gun.

Such local incidents aroused concern not only for German morale, but also about German small-unit leadership. The wastage in combat officers and noncommissioned officers since the beginning of Barbarossa had been tremendous. By mid-December, lieutenants were commanding many German infantry battalions, while sergeants or corporals led nearly all platoons and many companies. The continued effectiveness of even these remaining leaders was suspect due to the cumulative strain of fatigue and uninterrupted combat.[39]

The Germans first began to use strongpoint defensive positions during these hazardous early withdrawals. Frequently out of contact with neighboring forces and lacking sufficient time to prepare real defensive works, retreating units formed self-defense hedgehog perimeters like the rapidly advancing panzers had done during the previous summer. The 31st Infantry Division, for instance, abandoned all pretense at linear defense as soon as its own withdrawals began.[40] Likewise, the 137th Infantry Division pinpointed its own adoption of strongpoint tactics to the beginning of difficult retrograde engagements southeast of Yukhnov. According to the division's former operations officer, from that point on "for all practical purposes the campaign consisted of a battle for villages. Positions in open terrain were seldom possible due to the weather conditions, and only then when we remained several days in one position and the engineers could aid in blasting through the meter-deep frost."[41]

Hitler's 16 December no-retreat order curtailed the flurry of piecemeal withdrawals. By forbidding even local retreats without permission from the highest authority, this directive forced German units into a positional defense. The strongpoint style of defense, having come into wide use as a protective measure during the pell-mell retrograde operations, was extended into a general defensive system across most of the German front. Bearing little visible resemblance to the Elastic Defense postulated in prewar manuals, the strongpoint defense therefore evolved solely in response to the peculiar conditions of the winter battles.

The second factor necessitating a strongpoint scheme was the weakness of German units. In fact, German units stood at such low levels that no continuous front could realistically be sustained. This was true not only at the operational level where gaps between German divisions, corps, and armies had been routine since July, but even at the tactical level as well. At the start of the Soviet drive, the "continuous" line held by Army Group Center was, in fact, already a discontinuous series of unit fronts. Divisions of the German Fourth Army were allotted sectors thirty to sixty kilometers wide, although most infantry companies contained only twenty-five to forty men.[42] Such strengths were clearly insufficient to man a solid defensive front.

Losses during the first days of the Soviet counterthrust extinguished any lingering possibility of a continuous linear defense. In the Ninth Army's 35th Infantry Division, cold and Soviet attacks whittled the average rifle company strength from ten noncommissioned officers (NCOs) and sixty men on 7 December to five NCOs and twenty men just five days later.[43] Panzer Group 3, bearing the brunt of the Soviet counteroffensive northwest of Moscow, reported on 19 December that its XLI Corps and LVI Panzer Corps fielded only 1,821 and 900 total combatants respectively.[44] In a desperate attempt to create greater infantry strength, officers and men from nonessential rear services

German troops dig defensive trenches in the snow

were hurried forward, as were troops from artillery and antitank batteries whose weapons had been destroyed or abandoned. Though providing some relief, the relatively small number of additional riflemen thus created had no substantial impact.[45]

Losses in weapons and equipment paralleled those in personnel. By mid-December, field artillery pieces, antitank guns, motor vehicles, and tanks were all in particularly short supply. Panzer Group 4 estimated on 18 December that only 25 to 30 percent of its heavy weapons remained in action, while Panzer Group 3 counted only twenty-one artillery pieces of 100-mm or larger still operational among its six divisions. Similarly, the LVI Panzer Corps had lost so much of its equipment that it remained a corps-size unit in name only: its four panzer divisions together mustered only thirty-four tanks, and its 6th Panzer Division had no running tanks whatsoever.[46] This lack of heavy weapons further diminished the Germans' ability to hold continuous positions, while the shortage of effective motorized forces foreclosed the possibility of any type of mobile defense.

This overall weakness of German units made a renewed linear defense impossible. Not only could assigned frontages not be covered, but any such

extended deployment would further disperse what few troops and weapons remained. Consequently, to prevent German combat power from evaporating altogether, German company and battalion commanders instinctively drew their beleaguered units into small strongpoint garrisons when Hitler ordered them to "fanatical resistance" in place.

The severe winter weather was the third major reason that caused German defenders to adopt village-based strongpoints. Even by Russian standards, the 1941—42 winter was particularly harsh. From December until early March, military operations were hampered by heavy snowfall and by the few hours of winter daylight. Yet the extreme cold was by far the most significant aspect of the winter weather. During the winter battles, German and Russian forces clashed in temperatures routinely ranging from -10°C to -30°C, with brief cold spells exceeding -40°C.[47] Contrary to German belief, the cold was an impartial adversary that dogged the operations of both sides with equal intensity. However, the Germans were generally more vulnerable to the debilitating effects of the subzero temperatures due to a near-total lack of winter clothing and equipment.

Hitler blamed the Army High Command for the failure to provide winter necessities, ignoring any intimation that he might bear some blame for the German military predicament. In a clever propaganda stroke, Nazi Party functionaries launched a massive emergency drive in late December to collect winter clothing from the German public. Direct action by the party and the people, it was implied, would rapidly correct the scandalous frontline conditions wrought by General Staff bungling.[48] Coming at a time when Hitler was relieving "incompetent" and "disloyal" officers left and right, this program confirmed the popular impression that Adolf Hitler's personal intervention into the German Army's affairs was not only warranted but even overdue. So persuasive was this logic—and so thorough the propaganda effort to sell it—that even some high-ranking German military officers remained convinced after the war that slipshod General Staff planning had produced the shortage of winter equipment.[49]

German armored vehicles in snow revetments, December 1941

However, the truth was far different. German soldiers fought without winter clothing or special equipment simply because the German supply system could not transport the items forward from rear depots. Normal winter-issue items (woolen vests, caps, earmuffs, scarves, and sweaters) were stocked in Germany and Poland, and General Halder had repeatedly discussed the need to provide these and other essentials to the fighting forces before the onset of winter. On 10 November, however, Halder learned that transportation difficulties would delay deliveries of winter clothing to the front until late January 1942 or even later.[50]

The German logistical system, already tottering from the strain of providing fuel, food, and ammunition to three army groups over the primitive Russian transportation net, was brought to the brink of total collapse by the arrival of winter. Sporadic partisan activity and an epidemic of locomotive breakdowns greatly curtailed German rail-haul capacity. (For instance, the number of German supply trains to the Eastern Front totaled only 1,420 in January 1942, compared to 2,093 in September 1941.)[51] Losses of motor vehicles and draft horses further snarled supply distribution, and frantic attempts to press Russian pony-drawn *panje* wagons into service provided little immediate relief. Moreover, the severe cold increased the consumption rate of certain commodities. For example, German soldiers used large quantities of grenades and explosives to fracture the frozen earth in order to create makeshift foxholes. Likewise, fuel consumption did not decline in proportion to vehicle losses since drivers idled their motors round-the-clock to prevent engine freeze-up.[52]

Because the supply lines could not handle all the supplies that the Germans needed, the limited transportation space was devoted to such vital cargoes as ammunition and medical supplies. Since winter clothing is inherently bulky and therefore relatively inefficient to transport, it remained, for the most part, crated in warehouses in Poland and Germany, awaiting a lull in the logistical crisis when it could be shuttled forward without displacing other commodities.[53] In the meantime, German soldiers had to fend for themselves as best they could.[54]

Without winter clothing to protect them against the subzero temperatures, German units gravitated to Russian towns and villages to find shelter. This shelter was, quite literally, essential to German survival as troops without winter clothing quickly contracted frostbite unless treated to periodic warm-ups. Also, units deployed in the open overnight courted wholesale death by freezing. Even with the Soviet winter counteroffensive in full swing, cold-weather casualties exceeded combat losses in most German units. One German infantry regiment, heavily engaged at the beginning of the Soviet attack, estimated that its losses in two days of fighting amounted to only 100 battle casualties compared to 800 cases of frostbite.[55] As the LVII Panzer Corps' war diary succinctly stated on 26 December, "The weather increasingly stands as the troops' greatest enemy."[56]

Russian villages not only offered immediate protection from the cold, but they also provided relief from many of the collateral problems of winter warfare as well. Food could be warmed and drinking water thawed, thereby reducing the cases of stomach dysentery that lengthened German sick lists. Wounded soldiers could receive medical care without immediate fear of death

Horse-drawn sleds carry German supplies forward near Roslavl, December 1941

due to gangrene or exposure. Villages normally had supplies of straw, with which German soldiers could pad their boots and uniforms against the cold. Indoors, soldiers could more easily attend to personal hygiene—a matter of some consequence considering that German units reported more than 10,000 cases of typhus before spring.[57] Finally, small arms and other items of equipment could be cleaned and warmed inside heated huts. This last task had a significance beyond normal preventive maintenance, for the extreme cold made gunmetal brittle and weapons kept outside tended to jam or malfunction due to broken bolts and firing pins.[58]

By mid to late December, much of the German defensive front in Russia consisted of a series of local strongpoints, where battered German units defended themselves as best they could against waves of Russian attacks.* Since the combat strength of units had wasted away to where a continuous defensive line could not be held or even manned, and because Hitler had forbidden any large-scale withdrawal, this strongpoint defensive system emerged as the only plausible solution to the difficult winter situation. This system offered German forces a chance to defend themselves in place by concentrating what few resources remained without abandoning large chunks of territory entirely to Russian control. In addition, the village-based strongpoints provided essential shelter, since the harsh winter weather posed as dangerous a threat as the enemy.[59]

When combat reports characterized a strongpoint defense as the price of standing fast under the existing battlefield conditions, Hitler quickly issued a new directive giving his own approval to this expedient technique. Dated 26 December, this secret order began by reiterating Hitler's command that no ground be relinquished voluntarily. Glossing over the problems that had forced

*Hitler, with an orator's ear for colorful metaphor, preferred the term "hedgehog" (*Igelstellung*) to the more bland term "strongpoint" (*Stützpunkt*). By the end of the war, many officers were emulating the Führer's verbal usage, though *Stützpunkt* remained the technically correct term appearing in German doctrinal publications.

the strongpoint system onto the German armies, the Führer then emphasized the ways in which this technique could be turned against the Russians:

> The defensive system must be strengthened to the utmost, especially by converting all towns and farms into strongpoints and by *maximum echelonment in depth*. It is the duty of every soldier, including support troops, to use every means to hold these shelters to the last. The enemy will therefore be denied use of these localities. He will thus be exposed to the freezing cold, and will be denied use of the roads for supply purposes, thereby hastening his collapse. . . . These principles must be fully communicated to the troops [italics in original].[60]

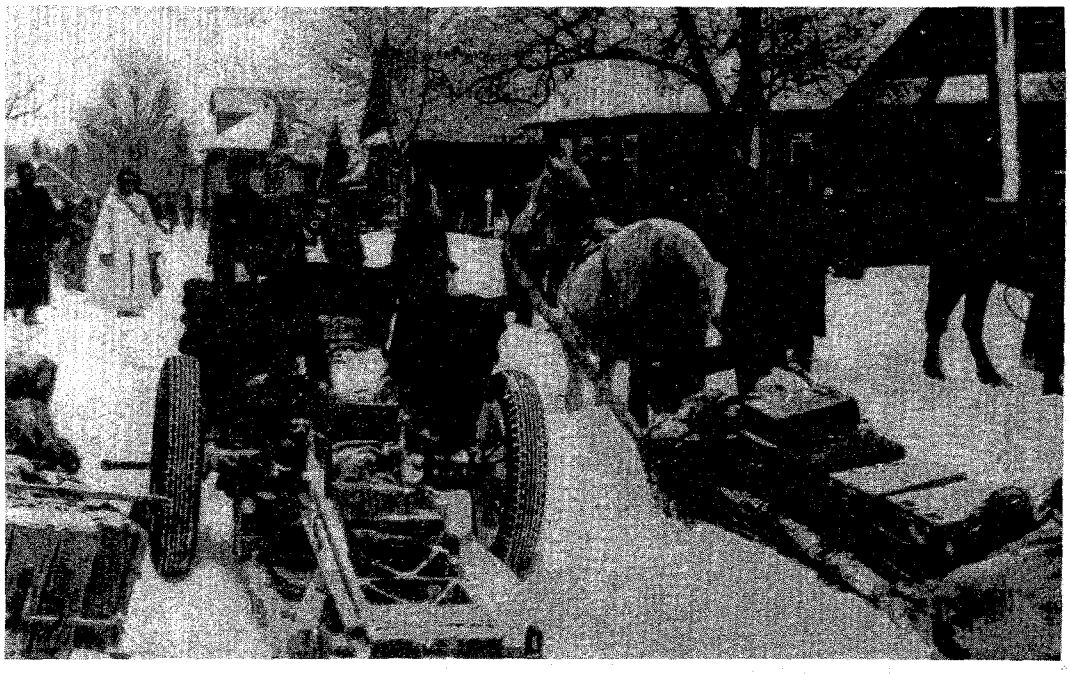
German soldiers at the front scarcely needed the Führer's advice on how to fight their Russian foes. The prevailing circumstances left no feasible alternative to the holding of village strongpoints. What remained to be seen was how effective this system would be in halting the Soviet counteroffensive and in saving German units from piecemeal annihilation.

Strongpoint Defense: Conduct

Driven to the shelter of Russian towns and villages as an emergency measure, German troops did their best to fortify these positions against the inevitable Soviet assaults. Defensive techniques varied from division to division according to local conditions and experiences. A major difficulty, now becoming apparent to German commanders for the first time, was that previous defensive training had been deficient. As one senior officer later wrote, German troops "so far had been inexperienced in this sort of thing. . . . It is surprising indeed how often and to what extent veteran officers, who had already participated in World War I, had forgotten their experiences of those days. The fact that [German] peacetime training shunned everything connected with 'defensive operations under difficult *winter conditions*' proved now detrimental for the first time [italics in original]."[61]

To compensate for their inexperience, German units shared combat know-how by exchanging hastily prepared battle reports. An early memorandum of this type, prepared by Fourth Army on 23 January 1942, recounted techniques used effectively by the 10th Motorized Division. Reduced to the strength of a mere infantry regiment, the 10th Motorized Division had for three weeks used a strongpoint defense to defend a fifty-kilometer sector against an estimated seven Red Army divisions.

The 10th Motorized Division's report explained how, in preparing to defend a village strongpoint, officers began by surveying the available buildings to identify those best suited for defensive use. Houses that did not aid in the defense were razed, both to deny the Red Army future use of them as shelter and also to improve German observation and fields of fire. Houses selected as fighting positions were then transformed into miniature fortresses capable of all-around defense: snow was banked against the outer walls and sheathed with ice, overhead cover was reinforced, and firing embrasures were cut and camouflaged with bedsheets. When available, multibarreled 20-mm flak guns were integrated into the defense in special positions, which consisted of houses with their roofs purposely torn off, the floors reinforced (to hold the additional weight of guns and ammunition), and the exterior walls covered with a snow-



A German combat group prepares to leave a Russian village with sleds carrying supplies and heavy weapons, February 1942

and-ice glacis to gun-barrel height. These "flak nests" helped keep both Soviet aircraft and infantry at bay.[62]

Russian farming communities were usually located on hills and ridges, and defensive strongpoints established within them normally had commanding observation and fire over the surrounding cleared fields.[63] Defensive combat from such positions was, again according to a 10th Motorized Division report, primarily "a question of organization," requiring careful use of all available heavy weapons and artillery. When enemy attacks seemed imminent, German artillery fire and air attacks (when available) were directed against known and suspected enemy assembly areas. As Soviet forces approached the strongpoint, the fire of heavy mortars, antitank guns, and heavy machine guns joined in. Such fire was carefully controlled, since experience showed that "it is inappropriate to battle *all* targets with single artillery pieces and batteries. It is much more important to strike the most important targets using timely, concentrated fire to destroy them." If enemy forces were able to get close enough to launch a close assault against the fortified buildings, the careful preparations of the defenders kept the odds strongly in their favor. Any enemy infantrymen who worked their way into a village were either cut down by interlocking fires from neighboring buildings or wiped out by the counterattacks of specially designated reserves. Armed with submachine guns and grenades, these reserve squads were launched against any penetrating enemy troops before they had a chance to consolidate.[64]

During this winter fighting, German units soon realized that strongpoints confined to small villages had serious drawbacks as well as advantages. For

A German machine-gun team defends a village strongpoint, February 1942. A destroyed Soviet tank is in the background.

one thing, Soviet armor posed a deadly threat to house-based defenses. Since camouflage could not hide buildings, Russian tanks had little difficulty in identifying and engaging the German positions concealed therein. Moreover, if successful in driving the Germans from their building shelters and into the open, the enemy tanks could slaughter the fleeing Germans almost at leisure.[65]

Second, strongpoints sited entirely inside villages virtually conceded control of the surrounding area to the Red Army. This reduced German reconnaissance and left the strongpoints susceptible to encirclement or night attack by stealth. (Even in its early report, the 10th Motorized Division conceded that night attacks were a major problem for village strongpoints. Noting that the Russians frequently used night attacks to disrupt the carefully orchestrated German fire plans, 10th Motorized Division officers felt compelled to keep a minimum of 50 percent of their strongpoint garrisons on full alert at night "with weapons in hand" to guard against surprise Soviet assaults.[66])

Finally, most rural Russian villages occupied only a relatively small area, with huts and houses clustered close together. According to an 87th Infantry Division after-action report, strongpoints restricted to such congested areas formed "man traps" since they made ideal targets for Soviet artillery.[67] The 35th Division's report concurred with this assessment, declaring emphatically that "the defense of such a [village] strongpoint must be made in the surrounding terrain."[68] Likewise, the 7th Infantry Division learned to avoid unduly concentrating troops in villages even when no other positions had been prepared.[69]

Based on these considerations, German units gradually refined their strongpoint defenses by pushing defensive perimeters beyond village limits. This helped to conceal the German positions, increased security against surprise attack, and gave sufficient dispersion to avoid easy annihilation by Soviet artillery. These extended perimeters also reduced the distance between neighboring units and made it more difficult for Russian patrols to locate the gaps between strongpoints. Though tactically sound, the extended perimeter was accepted only reluctantly by cold and tired soldiers, and "rigorous" measures were sometimes needed "to convince the troops of the necessity of occupying as uninterrupted a front line as possible in spite of the cold weather."[70]

Within these extended strongpoints, command and support personnel, artillery, and reserve detachments were normally located in and around the built-up area itself. An outer defensive perimeter, consisting of interconnected infantry fighting positions, encircled this central core (see figure 6). Although each unit developed its own priority of work, the construction of the outer defensive works usually began with the building of hasty fighting positions. Then followed, in varying order, the construction of small, warmed living bunkers; the improvement of fighting positions; the clearing of communications paths through the snow; the clearing of fields of fire; and the emplacement of mines and obstacles.[71]

As a rule, German soldiers kept "living bunkers" that were separate from their fighting positions (see figure 7). The quarters bunkers, replete with overhead cover, cots, stoves, and charcoal heaters, were built in sheltered pieces

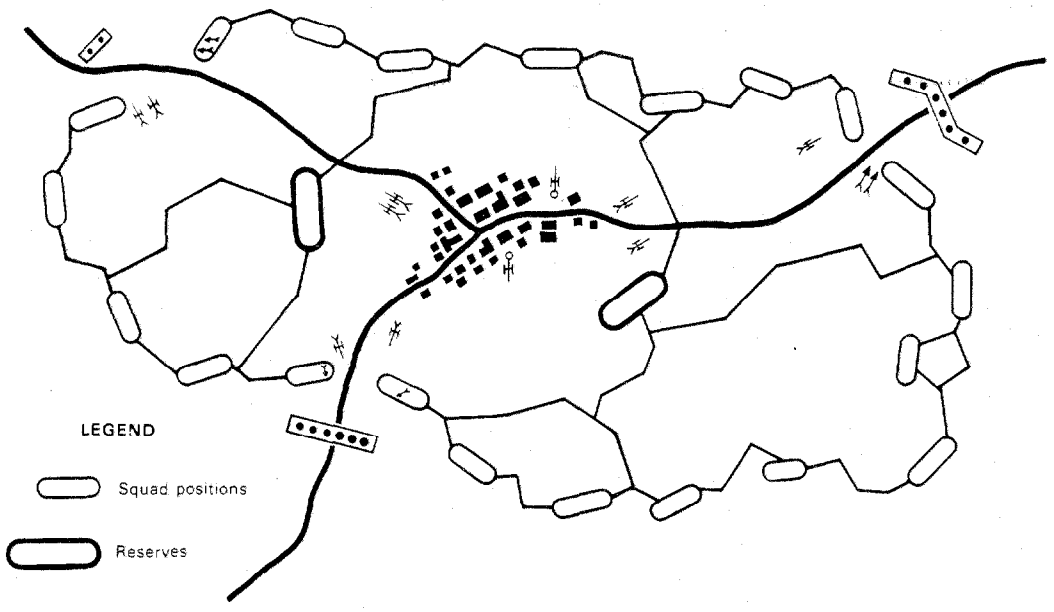
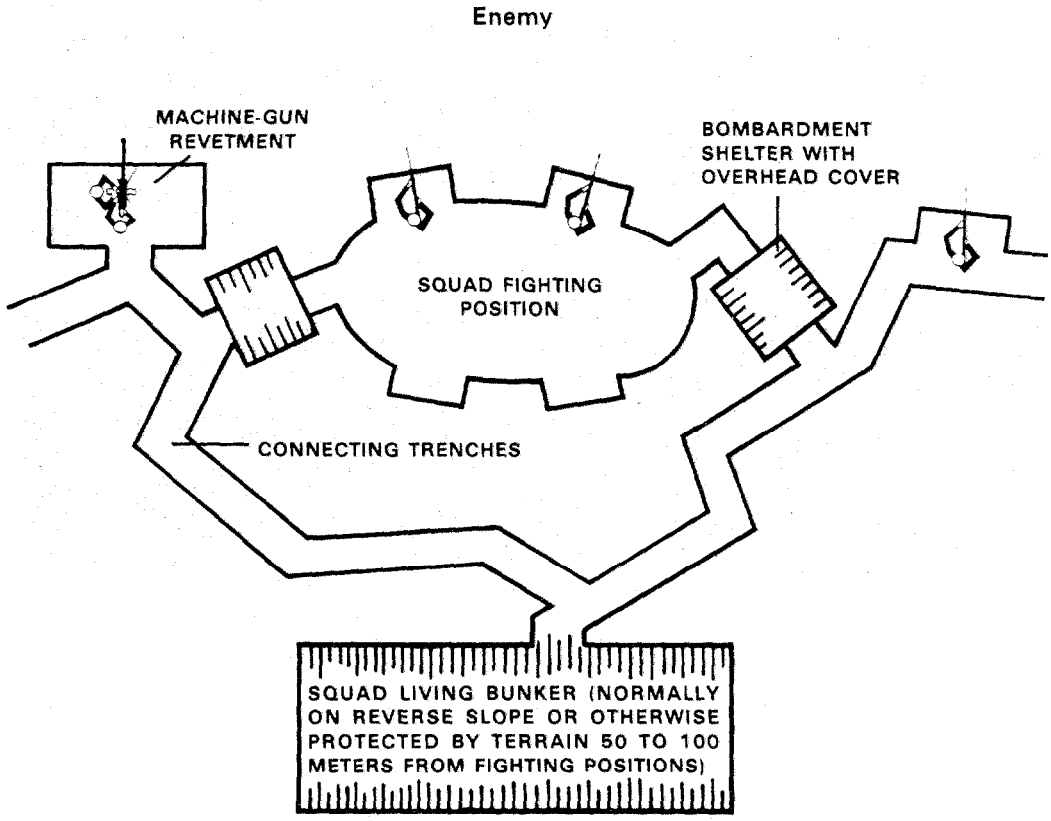


Figure 6. Extended strongpoint

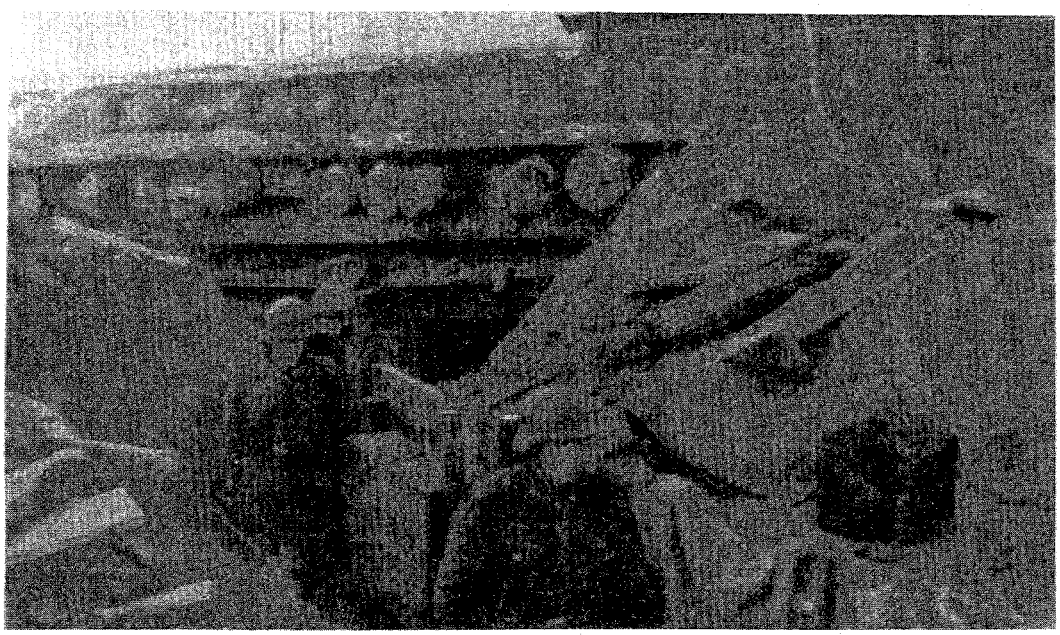


Living bunkers were sturdily built and had strong overhead covers. They normally contained cots, charcoal stoves, and wooden flooring, and served as a field barracks for German troops.

Figure 7. German squad fighting positions and living bunker

of ground and were connected to the fighting positions by short trenches. If outpost sentries sounded an alarm, soldiers would scramble from their warm quarters to their battle stations. The living bunkers for forward troops were just large enough to accommodate "the smallest combat unit (squad, machine-gun crew, or antitank team). Thus, these bunkers generally [held] about six men; otherwise they [became] *Menschenfallen* [man traps] under heavy bombardment." Reserve forces deeper inside the strongpoint perimeter were commonly sheltered in larger, platoon-size bunkers.[72]

Not only did German infantry squads live together in warmed bunkers, but they also fought together from squad battle positions. These squad positions were normally protected by individual rifle pits to the flanks and acted as alternate locations for nearby machine-gun teams.[73] The use of thick ice walls, armored by pouring water over poncho-covered bundles of sticks and logs, was a favored method for protecting the fighting positions and the connecting trenches.[74] The 35th Division found that the squad battle positions should be uncovered so embattled troops could observe, fire, and throw



German troops man trenches in extended village strongpoints. Defensive advantages were gained by siting positions away from buildings.

Captured German War Art Collection

A sketch of inside a German living bunker

grenades in all directions. Walk-in bombardment shelters with overhead cover, constructed at intervals throughout the defensive trench system, protected troops from enemy artillery. By day, crew-served weapons were kept inside the living bunkers to protect them from the cold; at night, they were pre-positioned outside ready for immediate use.[75]

The Russian winter caused special problems for laying minefields and constructing obstacles. Pressure-activated antipersonnel mines proved to be singularly unreliable. Enemy ski troops could glide over fields of pressure mines without hazard, and the heavy accumulations of snow cushioned the mines so that detonation even by footslogging infantry was uncertain. The snow also smothered the blast of those mines that did explode. Therefore, tripwire-detonated mines were more reliable and more effective than pressure mines, posing a threat even to Soviet ski troops. (The 87th Infantry Division suggested that tripwires be strung with excessive slack so they would not contract in the extremely cold temperatures and cause the mines to self-detonate.)[76] Placement of antitank mines was generally restricted to roads and other obvious avenues of approach for armor, as neither mines nor engineers were available in sufficient numbers to lay belts of antiarmor mines elsewhere. Since the Germans used pressure-detonated antitank mines, they ensured that the mines were laid on hard surfaces and that snow did not muffle the explosive

effects. In fact, after the blast of buried mines failed to damage the tracks of enemy T-34s, the 35th Division painted its antitank mines white so they could be left nearly exposed on hard-packed road surfaces.[77]

The construction of effective obstacles required some ingenuity. Deep snow, of course, was a natural obstacle to cross-country movement for troops lacking skis and snowshoes. (One German attributed the survival of encircled German forces at Demyansk to the fact that "even the Russian infantry was unable to launch an attack through those snows."[78]) However, as snowbanks did not always locate themselves to maximum defensive advantage, the Germans devised effective supplemental barriers. Simple barbed-wire obstacles were helpful, with a double-apron-style fence being most effective, especially when coupled with antipersonnel mines and warning devices. Unfortunately, barbed wire remained generally in short supply due to the ruinous German logistical system, and wire fences could be covered by drifting snow. Thus, the 7th Infantry Division believed that its few flimsy wire obstacles were valuable only for the sake of morale and early warning.[79] To compensate for the barbed-wire shortage, German troops contrived a variety of expedient entanglements. Some units gathered large quantities of harvesting tools from Russian villages and fashioned "knife rest" obstacles consisting of sharpened scythe blades supported by wooden frames. Even when covered by snow drifts, these nasty blade fences impeded or injured Soviet infantrymen wading through deep snow toward German positions.[80] In and near wooded areas, the Germans felled trees to make abatis-type barriers. Snow walls, measuring two to three

Author's collection

German soldiers exit a living bunker, winter 1941

A German reconnaissance patrol, supported by a sled-borne machine gun, prepares to depart a village strongpoint, January 1942

meters high and thick, were built—mostly with civilian labor—to impede Russian tanks.[81] Some German units tried to keep Soviet forces at arm's length by burning down all Russian villages forward of their own positions. Denied the warmth and shelter of these buildings, Red Army troops would have to spend their nights sheltered some distance away from the German lines and could attack only after a lengthy approach march.[82]

However fortified and protected by barricades, the village strongpoints still occupied only a small fraction of the German front line. Thus, although German officers continued to use the doctrinal term *"HKL"* (*Hauptkampflinie* or main line of resistance) to describe the German forward trace, a line existed only in a general sense. Recalling the large gaps between strongpoints, the former commander of the 6th Infantry Division later complained that even the use of "the term *HKL* was misleading. The *HKL* was a line drawn on a map, while on the ground there stood only a weak strongpoint-type security zone."[83] The Sixth Army's war diary also noted this discrepancy, describing the German winter positions as a mere "security line" of strongpoints that did not amount to an *"HKL* in the sense envisioned by *Truppenführung*."[84]

The intervals between strongpoints were the Achilles' heel of the German defensive system. Russian forces seemed to have an uncanny ability to locate unoccupied portions of the German front. If left unmolested, Red Army troops would maneuver through these gaps to encircle individual strongpoints. If cut off from outside aid and resupply, the besieged German defenders could then be forced either to capitulate or to conduct a desperate breakout. Alternatively, Soviet units could force their way between strongpoints and move directly against valuable objectives deeper in the German rear. While posing a less

immediate tactical threat to German regiments and divisions, this option imperiled the fragile German logistical network and, indirectly, the long-term survival of entire German armies. The Red Army even found ways to exploit gaps in sectors where current Soviet plans did not call for major operations. Russian press gangs brazenly shuttled through a large wooded gap between Demidov and Velikiye Luki, for example, to raise Red Army conscripts in the German rear. In other areas, the Soviets used openings in the German front to convey cadre, weapons, and equipment to fledgling partisan bands behind the German lines.[85]

As combat experience revealed the gravity of these problems, the Germans became more determined in their efforts to exert some control over the space between strongpoints. The 5th Panzer Division, discussing the problems of strongpoint defense in its after-action report, concluded that "constant control of the territory between builtup areas (strongpoints) is of decisive importance. Only thus can envelopment attempts by the enemy be promptly frustrated."[86]

Complete control of the entire front was, of course, inherently beyond the capacity of the strongpoint garrisons. Where adjacent strongpoints could adequately observe the surrounding open spaces, German units used artillery and mortar fire to disrupt large-scale Soviet infiltration. However, darkness, poor weather, wooded terrain, and distance all reduced the German ability to detect and to interdict clandestine Soviet movement by fire. For these reasons, as the 87th Infantry Division reported, "the closing of gaps by fire alone [was] not always sufficient."[87] German patrols also stalked the gaps between strongpoints, trying at least to detect, if not to prevent, Russian encroachment. Even this limited patrolling strained German resources, particularly at night: few strongpoint contingents could confidently spare many infantrymen for nocturnal patrols for fear of Soviet night attacks on the strongpoints themselves.[88] German commanders, therefore, came to realize that neither artillery fire nor ground patrols could thwart determined Russian efforts to pass between widely separated strongpoints.

Where strongpoints were sited closer together, the Germans relied on traditional doctrinal methods to expel Russian penetrations. With the bulk of their modest infantry strength confined to strongpoints, German forces could not exercise small-unit maneuver as described in *Truppenführung*; however, the Elastic Defense principles of depth, firepower, and counterattack effectively neutralized all but the most overwhelming Soviet attacks (see figure 8).

Since infantry strength was so limited, defensive depth had to be improvised. One technique was to arrange the forward strongpoints checkerboard style so that backup strongpoints guarded the gaps between advanced positions. The 331st Infantry Division, in fact, reported that one of the essential conditions for a successful strongpoint defense was that the redoubts be staggered one behind another to create defensive depth of sorts.[89] In a memorandum reflecting its own winter experiences, the 98th Division described how this arrangement entangled enemy breakthroughs "in a net of strongpoints."[90] Where sufficient forces allowed the luxury of this technique, the strongpoint system most nearly resembled the defense in depth set forth in *Truppenführung*.

Insufficient numbers of troops or broad unit frontages often prevented the overlapping of combat strongpoints in depth, however. Another expedient

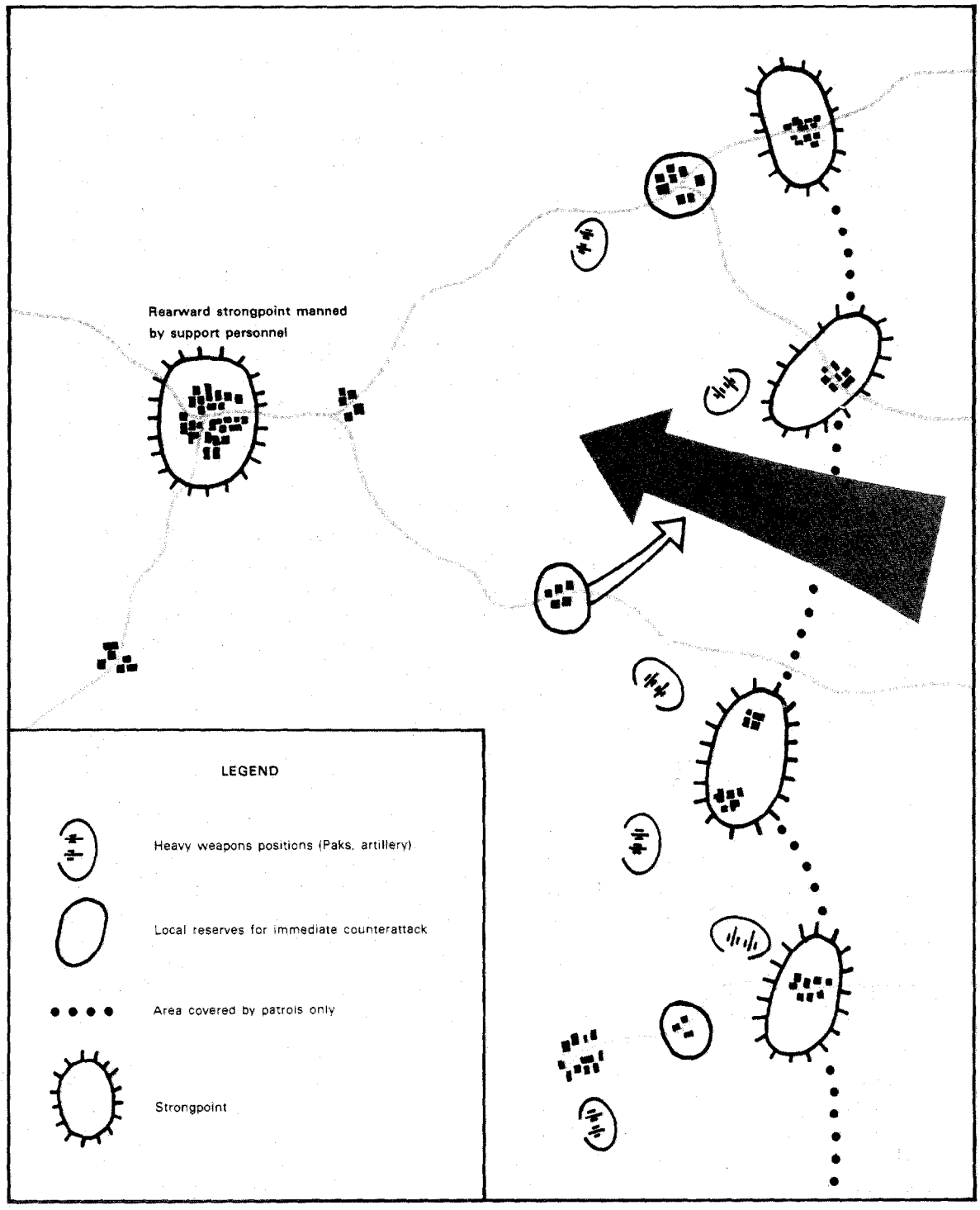


Figure 8. German strongpoint defense tactics, winter 1941—42

method of generating defensive depth—and the one specifically ordered by Hitler's 26 December directive—was to convert all rearward logistical installations into additional strongpoints. Though manned only by supply and service personnel (occasionally augmented by *Landeschutz* security units composed of overage reservists), these strongpoints prevented the Soviets from freely exploiting tactical breakthroughs. Such support strongpoints also protected the valuable logistical sites from surprise attack and served as rallying points for German personnel separated from their units in the confusion of battle.[91]

One other technique for giving depth to the German defense was to array heavy weapons (light "infantry" howitzers, antitank guns, flak guns, artillery pieces) and artillery observers in depth behind the forward strongpoints. Enemy forces penetrating beyond the strongpoint line could thus be continuously engaged by direct and indirect fire to a considerable depth. (The 197th Infantry Division actually recommended graduating artillery assets for a distance of five kilometers behind the main line of resistance.) Though weakening the direct-fire capabilities of the forward strongpoints somewhat, this technique did not require the displacement of the snowbound German guns in order to fire on penetrating Soviets. Furthermore, the fortified gun positions also served as additional pockets of resistance against further Russian advance.[92] The 87th Division saw in this a confirmation of prewar doctrinal methods, noting that "the arrangement of heavy weapons and their deployment in depth according to the tactical manuals proved successful."[93] Even though this technique complied with doctrine, under the circumstances it was a desperate expedient because it risked sacrificing the precious German artillery simply to contain ground assaults.

The German heavy weapons were far more valuable for their ability to smash advancing Soviet formations by fire. By careful fire control, German commanders used their concentrated firepower to slow, disrupt, and occasionally even destroy Soviet penetrations outright. As explained in one after-action report, "Rapid concentration of the entire artillery on the enemy's main effort is decisive."[94] To that end, German divisions meticulously integrated the fires of all major direct- and indirect-fire weapons (including infantry mortars and heavy machine guns), as well as the fires of neighboring units, into a single division fire plan. This prearranged fire plan was then executed on order of designated frontline commanders so that attacking Russian troops were suddenly ripped by simultaneous blasts of concentrated artillery and small-arms fire. The 35th Division explained that intense flurries of shells falling on Soviet assault units "just at the moment of attack [could] stampede even the best troops."[95]

However clever the Germans were in fabricating defensive depth and however skillfully they brandished their limited firepower, determined Soviet attacks could not be vanquished by these means alone. More often, depth and firepower were mere adjuncts to the counterattack, the third traditional ingredient of German defensive operations. German unit combat reports unanimously cited immediate, aggressive counterattacks (*Gegenstösse*)—even when conducted using limited means—as the best way to defeat Russian penetrations. Deliberate counterattacks (*Gegenangriffe*)—which doctrinally were those more carefully coordinated counterblows using fresh units—were regarded as less effective due to the shortage of suitable uncommitted forces and the

German infantry counterattacking, January 1942. Note the lack of winter camouflage overgarments.

German lack of winter mobility. The operations officer of the 78th Division stated that "a *Gegenstoss* thrown immediately against an enemy break-in, even if only in squad strength, achieves more than a deliberate counterattack in company or battalion strength on the next day."[96] However, a fine line existed between aggressiveness and recklessness, and few German units could afford to suffer even moderate personnel losses from an ill-conceived counterattack. Consequently, the 35th Division counseled that, where the Russians had been allowed any time at all to consolidate or where the depth of the enemy penetration made immediate success unlikely, German reserves were to be used only to contain the enemy rather than to be squandered in weak or uncoordinated piecemeal counterattacks.[97]

The immediate counterattacks were normally performed by small reserve contingents positioned in villages behind the forward strongpoints. According to one division commander, these forces were assembled despite the consequent weakening of the forward positions. The strength of these counterattack detachments varied in that some units held as much as one-third of their total strength in reserve, while others made do with smaller forces. Invariably, however, the counterattack forces were given as much mobility as possible. Where available, skis and snowshoes were issued to the reserve units; where these were unavailable, Russian civilians were put to work trampling paths through the snow along likely counterattack axes. To ensure the proper aggressive spirit, some units disregarded unit integrity and assembled their reserves from "especially selected, capable, and daring men."[98] These desperadoes were

armed "for close combat" with machine pistols and hand grenades. For maximum shock effect, these counterattack forces were launched against the open flanks of enemy penetrations, preferably in concert with heavy supporting fires from all available weapons.[99]

Thus, though the strongpoint defensive system did not conform exactly to the doctrine in *Truppenführung*, the German expedient methods bore the unmistakable imprint of traditional principles in their use of depth, firepower, and especially counterattack. General Maximilian Fretter-Pico, who served through the 1941—42 winter battles with the 97th Light Infantry Division, described the German improvisations in words that captured the essential spirit of the Elastic Defense: "These defensive battles show that an active defense, well-organized *in the depth of the defensive zone* and using every conceivable means to improvise combat power, can prevent a complete enemy breakthrough. A defense must be conducted offensively even in the depth of the defensive zone in order to weaken [enemy] forces to the maximum extent possible [italics in original]."[100]

In many cases, the strongpoint style of defense did achieve remarkable successes against great odds. Fretter-Pico's division, for example, held its own against some 300 separate Soviet attacks between January and March 1942, with its subordinate units executing in that time more than 100 counterattacks.[101] Other units were less successful, however, with some divisions being almost completely torn to pieces by the Russian counteroffensives. Therefore, the varied effectiveness of the German defensive expedients is best understood in the context of the overall strategic situation.

The Winter Campaign: Overview and Analysis

The Soviet winter counteroffensive unfolded in two distinct stages. The first stage, beginning on 6 December and lasting approximately one month, consisted of furious Russian attacks against Army Group Center. These blows were to drive the Germans back from the gates of Moscow and, in so doing, destroy the advanced German panzer groups if possible. These attacks breached the thin German lines at several points and sent Hitler's armies reeling westward until the stand-fast order braked their retreat. By the end of December, the front had temporarily stabilized, with most German units on the central sector driven to a form of strongpoint defense.

Encouraged by the success of these first attacks, Joseph Stalin ordered an even grander counteroffensive effort on 5 January 1942. This second stage mounted major Soviet efforts against all three German army groups and aimed at nothing less than the total annihilation of the *Wehrmacht* armies in Russia. Tearing open large gaps in the German front, Soviet armies advanced deep into the German rear and, in mid-January, created the most serious crisis yet. Grim reality finally succeeded where professional military advice had earlier failed, and Hitler at last authorized a large-scale withdrawal of the central German front on 15 January. Even with this concession, the German position in Russia remained in peril until Soviet attacks died out in late February.

To appreciate the tactical effectiveness of the German winter defensive methods, it is important to understand the nature of the Soviet counter-

offensives. German defensive actions did not take place in a tactical vacuum; rather, their value must be measured in relation to the peculiarities of Russian offensive methods during the 1941—42 winter.

Throughout the winter, the hardscrabble German defensive efforts benefited from the general awkwardness of Soviet offensive operations. The strongpoint defensive tactics adopted by German units exploited certain flaws in Russian organization, leadership, and combat methods. However, this exploitation was not purposeful, for as already discussed, other factors compelled the Germans to use strongpoints. Also, many of the particular Soviet internal handicaps were unknown to the Germans. Nevertheless, the effectiveness of the German strongpoint measures was enhanced by peculiar Red Army weaknesses.

Though achieving great success in their winter counteroffensives, the Soviet armies possessed overwhelming strength only in relation to their enfeebled German opponents. The Barbarossa campaign had inflicted frightful losses on the Red Army, and the Russian forces that assembled for the December attacks were a mixture of fresh Siberian divisions, burned-out veteran units, and hastily raised militia. At almost every level, these Russian forces were troubled by inadequate means and inferior leadership.

The first Soviet attacks against Army Group Center were executed by the Western *Front*, now under the command of the ubiquitous General Zhukov. Planning for the assault had begun only at the end of November, and preparations were far from complete when the counteroffensive began. Though nine new Russian armies were concentrated around Moscow, the assaulting forces also included many divisions ordered straight into the attack after weeks of fierce defensive fighting. Except for some Siberian units, the newly deployed formations were generally understrength, poorly trained, and lacking in equipment. The rebuilt Soviet Tenth Army, for example, had no tanks or heavy artillery and was short infantry weapons, communications gear, engineering equipment, and transport. Although the Tenth Army nominally fielded ten rifle divisions, its overall strength, including headquarters and support troops, scarcely amounted to 80,000 men. Ammunition shortages also afflicted Zhukov's command, with many units having only enough stocks to supply their leading assault elements. Large mobile formations were virtually nonexistent; for example, Western *Front* forces included only three tank divisions, two of which had almost no tanks. Most of the available tanks were instead scattered among fifteen small tank brigades, each having a full establishment strength of only forty-six machines.[102]

These problems were compounded by amateurish leadership and faulty doctrine. Instead of concentrating forces on narrow breakthrough sectors, inexperienced Soviet commanders and staffs assigned wide attack frontages (nine to fourteen kilometers) to each rifle division by the simple method of "distributing forces and equipment evenly across the entire front."[103] Marshal S. I. Bogdanov, recalling his experiences in the Moscow counteroffensive, noted a similar deficiency in using the few Soviet tank forces, namely, "the tendency to distribute tanks equally between rifle units . . . which eliminated the possibility of their massing on main routes of advance." Furthermore, the Soviet tanks were cast solely in an infantry support role. "All tanks," continued Bogdanov, "which were at the disposal of the command, were assigned to

Dead Russian troops and destroyed Soviet tanks litter the snowy field in front of German defensive positions, winter 1941—42

rifle forces and operated directly with them . . . or in tactical close coordination with them. . . ."[104] These errors further diluted the Soviet combat power and weakened the Russian capacity to strike swiftly into the enemy rear with sizable mobile forces.

Nevertheless, Zhukov's Western *Front* armies possessed more than enough brute strength to overwhelm the weak German lines opposite Moscow. They did so with a notable lack of finesse, however, often butting straight ahead against the flimsy German positions when ample opportunity existed to infiltrate and outflank the invaders. As one Soviet analyst criticized, "Although the [German] enemy was constructing his defense on centers of resistance and to slight depth (3—5 km), and there were good opportunities for moving around his strongpoints, our units most frequently conducted frontal assaults against the enemy."[105] When breakthroughs were achieved, follow-up thrusts minced timidly forward as Soviet commanders looked fearfully to their flanks for nonexistent German ripostes.[106] Oafish Red Army attempts to encircle German formations closed more often than not on thin air. Impatient at these mistakes, General Zhukov issued a curt directive to Western *Front* commanders on 9 December, decrying the profligate frontal attacks as "negative operational measures which play into the enemy's hands." Zhukov ordered his subordinates to avoid further "frontal attacks against reinforced centers of resistance" and urged instead that German strongpoints be bypassed completely. The bypassed German strongpoints would hopefully be isolated by the Soviet advance and then later reduced by following echelons. To lend speed and

depth to his spearheads, Zhukov also ordered the formation of special pursuit detachments composed of tanks, cavalry, and ski troops.[107]

Although these measures increased the pace of the Russian drive, they failed to increase appreciably the bag of trapped German units and even may have helped to save some retreating German forces from destruction. As previously discussed, German units turned to strongpoint defensive methods during this chaotic retreat period. These strongpoints massed the slender German resources in a way that the diffuse Soviet deployment did not, thereby reducing the relative German tactical vulnerability. Zhukov's *Front* Directive of 9 December prohibited Russian divisions from breaking down these centers of resistance by direct assault, even though the Red Army forces could certainly have achieved this in many instances. In accordance with Zhukov's instructions, the Russian forces tried instead to snare the retreating Germans by deep maneuver. At this stage of the war, however, the Red Army possessed neither the skill, experience, nor (except for the few pursuit groups) mobility to accomplish these operations crisply and effectively. Time and again, German divisions dodged would-be envelopments or, when apparently trapped, carved their way out of clumsy encirclements.[108] Even Zhukov's sleek pursuit groups failed to cut off German forces. These mobile detachments—often acting with Soviet airborne forces—caused alarm in the German rear areas, but the Russian cavalry and ski troops were generally too lightly armed to do more than ambush or harass German combat formations.

The first stage of the Soviet winter counteroffensive drove the Germans back from Moscow but failed to destroy the advanced German panzer forces. The divisions of Army Group Center, slipping into a strongpoint style of defense as they retreated, by luck adopted a tactical form that the advancing Russians were not immediately geared to smother. Even though many German divisions were mauled at the outset of the Red Army counteroffensive, other German units probably owed their subsequent survival to the purposeful Soviet avoidance of bludgeoning frontal attacks and to the maladroitness of Soviet maneuver.

When Hitler ordered the German armies to stand fast on 16 December, the opening Soviet drives had already spent much of their offensive energy. The initial Russian attacks had been planned, as Zhukov later explained, merely as local measures to gain maneuver space in front of Moscow.[109] The near-total dissolution of Army Group Center's front exceeded the most optimistic projections of the Soviet High Command. Having planned for a more shallow, set-piece type of battle, the Russians were unable to sustain their far-ranging attacks with supplies, replacements, and fresh units. On the contrary, Russian offensive strength waned drastically as Red Army divisions moved away from their supply bases around Moscow. Consequently, Hitler's dogmatic no-retreat directives, issued at a time when some Soviet units were already operating 50 to 100 miles from their starting lines, stood a much greater chance of at least temporary success than would have otherwise been the case.

During the latter part of December, both sides struggled to reinforce their battered forces. Hitler ordered the immediate dispatch of thirteen fresh divisions to the Eastern Front from other parts of German-occupied Europe.[110]

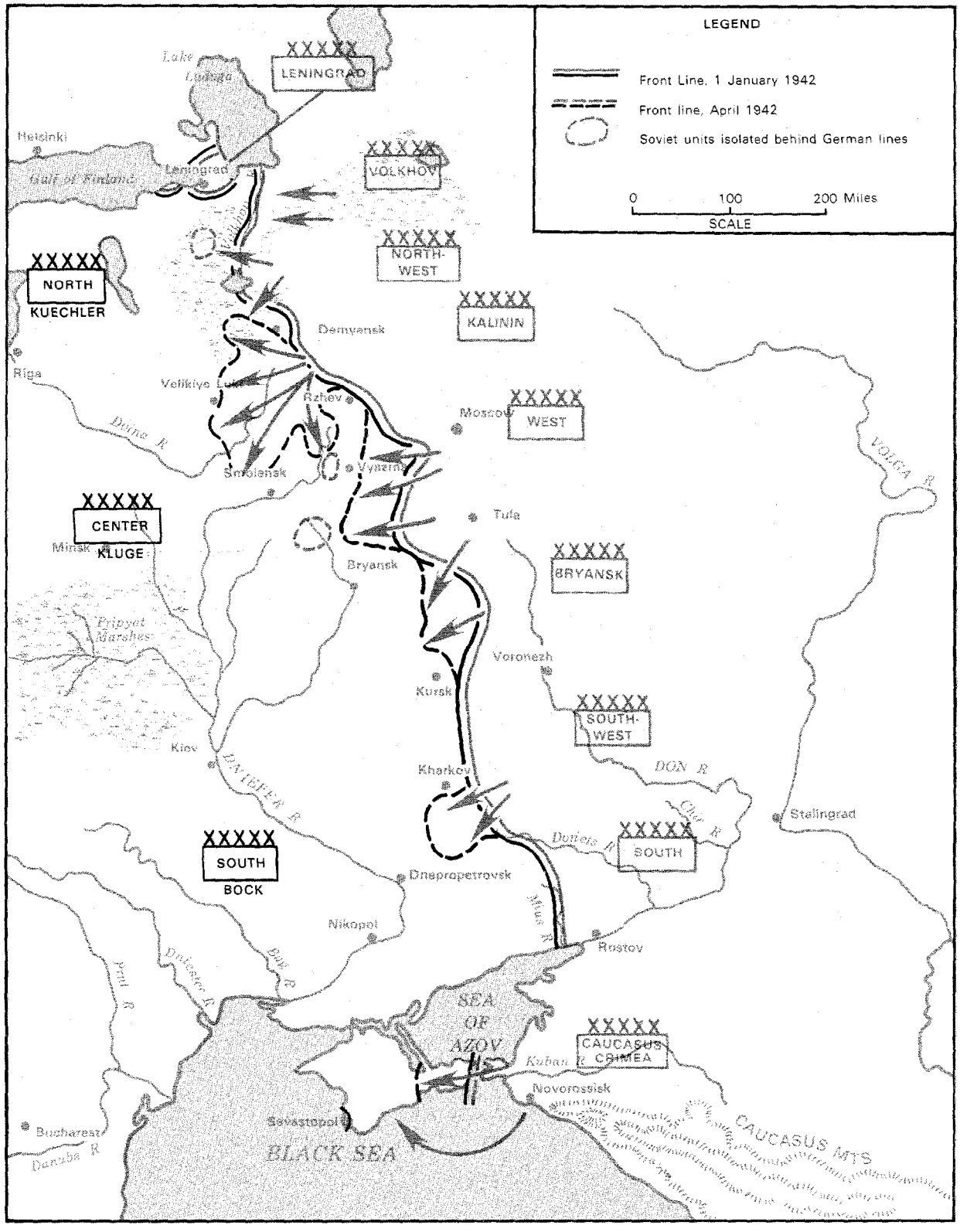
The arrival of these units proceeded slowly, retarded by the same transportation difficulties that dogged the German supply network in Russia. To speed the transfer of badly needed infantrymen, *Luftwaffe* transports airlifted several infantry battalions straight from East Prussia to the battle zone—in retrospect, a measure of questionable merit since the reinforcements arrived without winter clothing or heavy weapons.[111] The frantic German haste to introduce these new units into the fighting led to bizarre incidents. In one case, the detraining advance party of a fresh division was thrown straight into battle even though many of the troops involved were only musicians from the division band.[112] In still another case, elements of two separate divisions were combined into an ad hoc battle group as they stood on railroad sidings and then hurried into the fray without further regard to unit integrity or command structure.[113]

In a curious parallel to Hitler's command actions, Soviet leader Joseph Stalin assumed personal control over the strategic direction of Russian operations in late December. In Moscow, Stalin saw in the Red Army's surprising early success the makings of an even grander counteroffensive to crush the invaders and win the war at one stroke. Pushing Russian reinforcements forward as fast as they could be assembled, Stalin sketched out his new vision for this second stage of the Soviet counteroffensive. The Leningrad, Volkhov, and Northwestern *Fronts* would bash in the front of Army Group North and lift the siege of Leningrad. The Kalinin, Western, and Bryansk *Fronts* would annihilate Army Group Center by a colossal double envelopment. In the south, the Soviet Southwestern and Southern *Fronts* would crush Army Group South while the Caucasus *Front* undertook amphibious landings to regain the Crimea (see map 7).

This Red Army avalanche fell on the Germans during the first two weeks of January, thus beginning the second stage of the winter campaign. As during the first stage, German defensive actions benefited from Soviet offensive problems.

A fundamental flaw in the new Soviet operation was the strategic concept itself. Whereas the first-stage counterattacks had been too cautious, the second-stage objectives were far too ambitious and greatly exceeded what could be done with Red Army resources. The attacking Soviet armies managed to penetrate the German strongpoint belt in several areas, but once into the German rear, the Soviets did not retain sufficient strength or impetus to achieve a decisive victory. Stalin had willfully ignored the suggestions of Zhukov and other Soviet generals that decisive operational success required less grand objectives and greater concentration of striking power.[114] Instead, Stalin insisted that the opportunity had come to begin "the total destruction of the Hitlerite forces in the year 1942."[115]

The advantage to German defensive operations from this conceptual fault was profound. Lacking the necessary reserves to assure the defeat of major breakthroughs, German armies were spared decisive encirclement and possible annihilation by the dissipation of Soviet combat power. After breaking through the German strongpoint crust, Russian attacks eventually stalled on their own for lack of sustenance. On several occasions, major Soviet formations became immobilized in the German rear, slowly withering until mopped up by German reinforcements. For example, the Soviet Second Shock Army, commanded by



Map 7. Second phase of the Soviet winter counteroffensive, January—March 1942

General A. A. Vlasov, slashed across the rear of the German Eighteenth Army in January only to become bogged down there in forest and marsh. Unsupplied and unreinforced, Vlasov's nine divisions and several separate brigades remained immobile in the German rear until finally capitulating in June 1942.[116] Likewise, the Soviet Thirty-Third Army and a special mobile operational group composed of General P. A. Belov's reinforced I Guards Cavalry Corps struck deep into the vitals of Army Group Center near Vyazma only to be stranded there when German troops blocked the arrival of Russian support forces. A similar fate befell the Russian Twenty-Ninth Army near Rzhev.[117] In these and other cases, the dispersion of Soviet combat power in pursuit of Stalin's grandiose objectives prevented the reinforcement or rescue of the marooned forces.

Although failing to provoke a general German collapse, these deep drives unnerved the German leadership. As Soviet forces groped toward Army Group Center's supply bases and rail lines of communication in mid-January, the German stand-fast strategy grew less and less tenable. Near despair, General Halder wrote on 14 January that the Führer's intransigent leadership "[could] only lead to the annihilation of the Army."[118] The next day, though, Hitler relented by authorizing a belated general withdrawal of Army Group Center to a "winter line" running from Yukhnov to Rzhev. However, Hitler imposed stiff conditions on the German withdrawal: all villages were to be burned before evacuation, no weapons or equipment were to be abandoned, and—most distressing of all to German commanders with vivid memories of the piecemeal withdrawals in early December—the retreat was to be carried out "in small steps."[119]

Indicative of Hitler's penchant for meddling in tactical detail, this last constraint proved particularly painful. Senior German commanders, conforming to Hitler's preference for a more centralized control of operations, dictated the intermediate withdrawal lines to their subordinate divisions. Often, the temporary defensive lines were simply crayon marks on someone's command map, and several units suffered unnecessary casualties in defense of hopelessly awkward positions laid out "on a green felt table" at some higher headquarters.[120] Even with this retreat to the winter line, then, it was fortunate for the German cause that the Soviet High Command had obligingly dissipated its forces.

Logistics also hampered Soviet operations to the Germans' benefit. In his eagerness to exploit the December successes, Stalin ordered the January wave of offensives to begin before adequate logistical preparations had been made.[121] Zhukov later complained bluntly that, as a result, "[logistical] requirements of the armed forces could not be met as the situation and current tasks demanded." To emphasize this point, the Western *Front* commander recited his own ammunition supply problems:

> The ammunition supply situation was especially bad. Thus, out of the planned ammunition supplies for the first ten days of January, the *Front* actually received: 82mm mortar shells—1 per cent; artillery projectiles—20-30 per cent. For all of January: 50mm mortar rounds—2.7 per cent; 120mm shells—36 per cent; 82mm shells—55 per cent; artillery shells—44 per cent. The February plan was no improvement. Out of 316 wagons of ammunition scheduled for the first ten days, not one was received.[122]

The general shortage of artillery ammunition directly affected the Red Army's failure to crush the German strongpoint system. Because German defenders regarded Soviet artillery to be an extremely dangerous threat to their strongpoints, the Germans took such measures as were possible to disperse their defensive positions and reduce the effectiveness of the Russian fire. Even so, that more German strongpoints did not become fatal "man traps" stemmed from the fact that, in general, "the [Soviet] artillery preparation was brief . . . due to a shortage of ammunition, and was of little effectiveness."[123] Zhukov's units, for example, were limited to firing only one to two rounds per tube per day during their renewed offensive advances. In a report to Stalin on 14 February, Zhukov complained that "as shown by combat experience, the shortage of ammunition prevents us from launching artillery attacks. As a result, enemy fire systems are not suppressed and our units, attacking insufficiently neutralized enemy positions, suffer very great losses without achieving appropriate success."[124]

Misguided tactics also undermined the Soviet artillery's effectiveness. In accordance with faulty prewar tactical manuals, Red Army gunners distributed their pieces as evenly as possible along the front, a practice that prevented the massing of fires against separated strongpoints. Moreover, Russian artillery units frequently located themselves too far to the rear to be able to provide continuous fire support to attacking units battling through a series of German strongpoints. Instead, according to Artillery General F. Samsonov, "the artillery often limited its operations only to artillery preparation for an attack. All this slowed down the attack, often led to the abatement of the attack, and limited the depth of the operation."[125]

A German patrol brings in prisoners and a captured machine gun, March 1942

These artillery problems were symptomatic of the general lack of Soviet combined arms coordination during this period. Attacking Russian tanks often outdistanced their accompanying infantry, leaving the infantry attack to stall in the face of German obstacles and small-arms fire while the tanks barged past the German strongpoints. Accordingly, the Soviet armor, shorn of its infantry protection, was more vulnerable to German antitank measures. Occasionally, Soviet tanks would halt in full view of German gunners and wait until the assigned Russian infantrymen could catch up, or the tanks would turn around and retrace their path past German positions in search of their supporting foot soldiers.[126] Both of these measures played into the hands of German antitank teams. As a result of the general confusion and lack of tactical cooperation between artillery, infantry, and armored forces, Soviet commanders conceded the vulnerability of their own assaults to German counterattack.[127] Indeed, the German use of strongpoint tactics preyed mercilessly on these Soviet blunders: German fire concentrations separated tanks and infantry, antitank guns located in depth throughout the strongpoint network picked off the naked Russian armor, and the carefully husbanded German reserves—maneuvering without fear of Soviet artillery interference—delivered the *coup de grace* by counterattacking the groggy remnants of any Red Army attack.

In an attempt to rectify these shortcomings, Stalin issued a directive to his senior commanders on 10 January that commanded better artillery support, closer tank-infantry cooperation, and—like Zhukov's directive a month earlier to the Western *Front*—greater use of infiltration and deep maneuver. As a diagnosis, this document showed great insight into the Red Army's tactical faults. As a corrective measure, this directive (and supplementary orders that succeeded it) came too late, for most Soviet forces were already heavily engaged in the second-stage offensives by the time it was issued. Also, there was little opportunity to reorganize and retrain Soviet units before spring.[128]

By the end of February, Stalin's great offensive had run its course. German armies, reinforced at last by the few fresh divisions that Hitler had summoned to the Eastern Front, reestablished a continuous defensive front, relieved some German pockets isolated behind Russian lines, and stamped out those Red Army forces still holding out in the German rear. The front line itself stood as stark evidence of the confused winter fighting: instead of spanning the front in a smooth arc marred by a few minor indentations, it snaked tortuously back and forth, its great swoops and bends marking the limits of Russian offensive and German defensive endurance.

On the German side, the best that could be said of the winter campaign was that the German *Wehrmacht* had survived. Strapped by Hitler's strategic rigidity, their strength exhausted, and lacking proper winter equipment, the German eastern armies had successfully withstood the two-stage Soviet onslaught using an improvised strongpoint defensive system. Though fighting as well as could be expected under the circumstances and even incorporating those aspects of their doctrinal Elastic Defense that could be made to fit the situation, German Army officers recognized that they had come within a hairbreadth of disaster. Shaking their heads at their own good fortune, they dimly realized that the survival of the German armies owed as much to Russian

tactical clumsiness and strategic miscalculation as to German steadfastness. This realization clouded German attempts to draw doctrinal conclusions from the winter fighting.

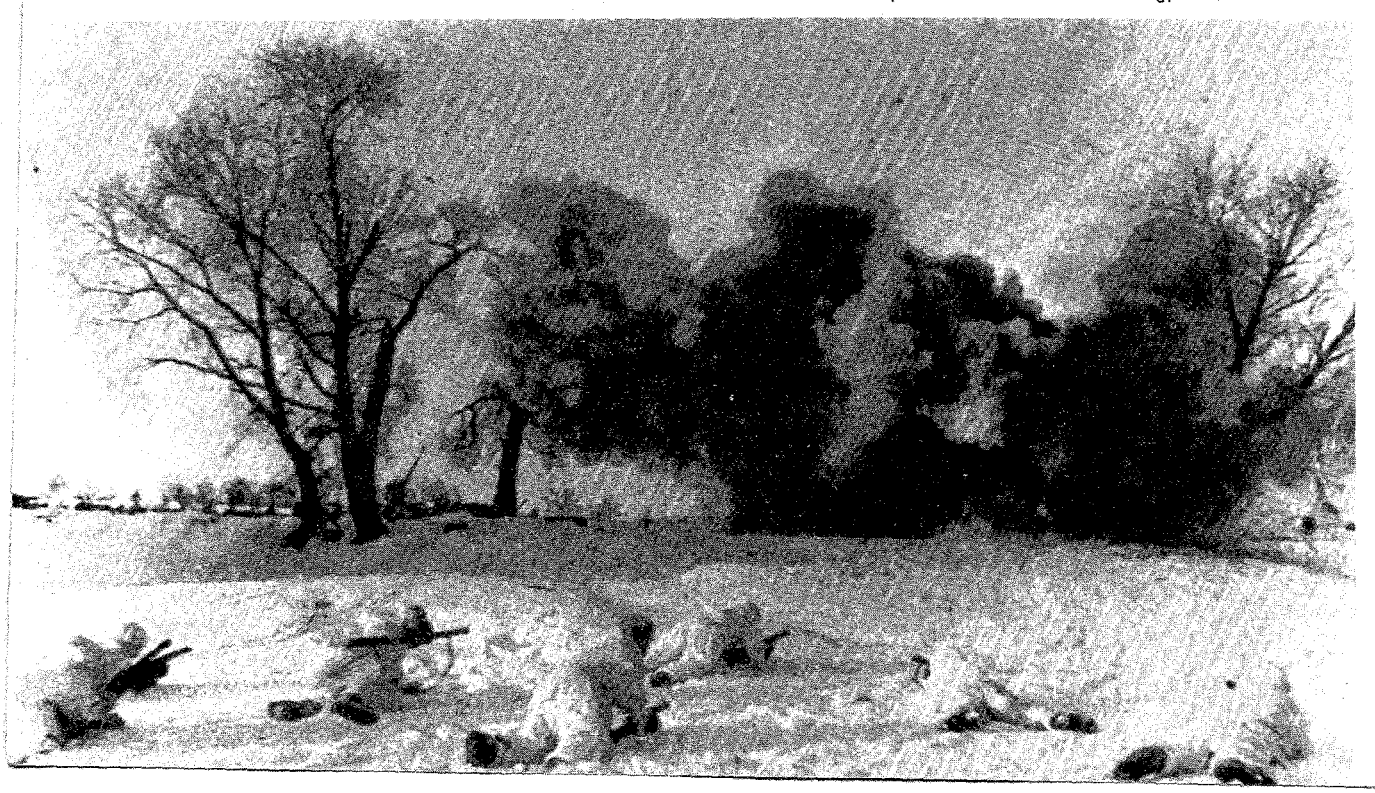
German Doctrinal Assessments

Adolf Hitler regarded the winter defensive battles to be his own personal triumph, won against heavy military odds and in spite of the advice of the German Army's senior officers. In rhetorical terms that made it seem as if he had personally braved Russian bullets (Hitler in fact had not visited front commanders since late November), the Führer gave his own assessment of the campaign to Dr. Joseph Goebbels on 20 March 1942. As the propaganda minister wrote in his diary:

> Sometimes, the Führer said, he feared it simply would not be possible to survive. Invariably, however, he fought off the assaults of the enemy with his last ounce of will and thus always succeeded in coming out on top. Thank God the German people learned about only a fraction of this. . . . The Führer described to me how close we were during the past months to a Napoleonic winter. Had he weakened for only one moment, the front would have caved in and a catastrophe ensued that would have put the Napoleonic disaster far into the shade.[129]

Hyperbole aside, the winter fighting had borne Hitler's peculiar stamp, first in the refusal to allow withdrawals and then, after 15 January, in his insistence that Army Group Center's retreat be conducted in small costly steps. Moreover, the Führer's leadership style was already corroding the bonds of trust and confidence between various field commanders. As a precaution against the dictator's wrath, some officers kept written copies of their orders to subordinates as proof that Hitler's instructions had been passed on unaltered. (Field Marshal von Kluge, since December the commander of Army Group Center, was a master practitioner of this artifice.) Recriminations were another symptom of this disease. On 30 April 1942, for example, Kluge demanded an official inquiry to ascertain why the 98th Division (whose

Soviet troops attack a German strongpoint, March 1942



A lone German sentry stands guard over snowed-in vehicles, February 1942

combat strength was less than 900 men) had failed to carry out impossible orders to crush a fortified Soviet bridgehead at Pavlovo held by superior enemy forces. That 12 officers and 450 men had fallen in the German counterattack mattered little to Kluge, who needed scapegoats.[130]

The Russian winter battles left their imprint on the Führer as well. The success (if the avoidance of total disaster could be described as such) of the stand-fast strategy reinforced Hitler's conviction that his own military instincts were superior to the collective wisdom of the front commanders and the General Staff. It also convinced him that will and determination could triumph over a materially stronger enemy. Armed with these delusive notions, Hitler ordered German troops to stand fast on many future battlefields, though more often with disastrous than with victorious results. The seeds of future stand-fast defeats at Stalingrad and El Alamein, as well as in Tunisia, the Ukraine, and Normandy, were planted in Hitler's mind during the 1941—42 winter struggle.

On a less grand level, the German Army set about drawing its own conclusions about the winter fighting. Responsibility for these assessments was divided. The Operations Branch of the Army General Staff was responsible for seeing that major lessons learned were immediately reported and disseminated to interested field commands. The General Staff's Training Branch had responsibility for the more deliberate adjustment of doctrine through the publication of new field manuals and training directives. Finally, field commanders from army group level downward all had some latitude and authority in modifying the tactical practices of their own forces.

Author's collection

A camouflaged German antitank gun defends a village strongpoint, winter 1941

After-action reports from frontline units constituted the primary information base on which these agencies depended. When necessary to amplify this information, General Staff officers visited forward units or interviewed officers returning to Berlin from frontline duty. (Even General Halder, the chief of the Army General Staff, frequently conducted such firsthand consultations.[131])

Fourth Panzer Army ordered the most thorough early assessment of the winter fighting. On 17 April 1942, it sent a memorandum to its subordinate units ordering them to prepare comments on general winter warfare experiences. As guidance, this memorandum posed more than forty specific questions about tactics, weapons, equipment, and support activities. Thirteen of these questions dealt directly with defensive doctrine and included such matters as the choice of a linear defense versus a strongpoint system, the siting of strongpoints, the construction of obstacles, patrolling, and the composition and role of reserves.[132] While the resulting reports provided valuable technical information in all areas, comments on antitank defense and on strongpoint warfare in general caused the greatest doctrinal stir.

The German Elastic Defense had been designed primarily for positional defense against infantry, and opposing tanks had previously been regarded simply as supporting weapons for the enemy's foot troops. The Barbarossa campaign and winter fighting had exposed the woeful inadequacy of German antitank guns against Russian armor; therefore, Soviet tank attacks—with or without infantry support—had emerged as a major threat in their own right.

In its response to the Fourth Panzer Army memorandum, the German XX Corps noted that, due to the weakness of German antitank firepower, otherwise weak enemy attacks posed a severe danger to German defenses if the attacking force was supported by even one heavy tank.[133] Overall, the reports that were returned to Fourth Panzer Army emphasized this fact and gave careful considerations to the defensive measures necessary to defeat Soviet tanks.

German prewar antitank doctrine had focused on separating enemy tanks and infantry. Since June, battles against Russian armor had confirmed the theoretical effectiveness of this technique. Under attack by Red Army tank-infantry forces, German units frequently succeeded in driving off or pinning down the Soviet infantry with artillery, small-arms, and automatic weapons fire. This tactic was abetted by the generally poor Soviet combined arms cooperation, as Stalin admitted in his 10 January directive. In fact, several German commanders noted how easily Russian tanks and infantry could be separated and the surprising tendency of the enemy occasionally to discontinue otherwise successful tank attacks when the accompanying infantry was stripped away.[134] Confirming the general thrust of German antitank doctrine, the 35th Division's report declared that "the most important measure [was] to separate the tanks from the infantry."[135]

What troubled German commanders was not the splitting of enemy armor and infantry but the practical difficulties in destroying Soviet tanks. German prewar thinking, reflecting the wisdom passed down from the Great War, had regarded tanks without infantry support to be pitiable mechanical beasts whose destruction was a relatively simple drill. Given the ineffectiveness of German antitank guns, such was clearly not the case on the Russian Front.

Most German antitank guns needed to engage the well-armored Russian tanks at extremely close range in order to have any chance at all of destroying or disabling them. To accomplish this, the antitank guns were placed in a defilade or reverse-slope position behind the forward infantry. Hidden from direct view, the *Paks* then had a good chance for flank shots at enemy tanks rolling through the German defenses. The disadvantage of this system, of course, was that the *Paks* could not engage Soviet armor until it had actually entered the German defensive area.[136]

The only German weapon able to kill Soviet tanks at extended ranges was the 88-mm flak gun. However, this weapon was so valuable and, due to its high silhouette, so vulnerable that it, too, was commonly posted well behind forward German positions. Thus hidden, the heavy flak guns were safe from suppression by Russian artillery and from early destruction by direct fire; they could not, however, use their extended range to blast enemy tanks far forward of the German lines.[137] Thus, neither the lighter *Paks* nor the heavy 88-mm flak guns provided an effective standoff antitank capability.

The lack of powerful antitank gunfire placed enormous pressure on German infantrymen in two ways. First, it was not uncommon for German infantry positions to be overrun by Soviet tanks. Assaulting in force, Russian armored units were virtually assured of being able to rush many of their tanks through the German short-range antitank fire, over the top of German fighting positions, and into the depths of the German defenses. This shock effect wracked the nerves of German soldiers, who found little comfort in an

antitank concept that, in practice, regularly exposed them to the terror and danger of being driven from their positions by Soviet T-34s. Echoing sentiments first voiced by German commanders twenty-five years earlier, one officer warned, "The fear of tanks (*Panzerangst*) must disappear. It is a question of nerves to remain [in fighting positions being overrun]."[138]

Second, German infantrymen were routinely given the dangerous task of destroying Russian tanks by close combat measures (mines, grenades, fire bombs). Though such methods had been discussed in prewar manuals and journals, the powerlessness of the German antitank guns forfeited to the beleaguered infantry a far greater burden than anyone had foreseen. For an infantryman, attacking a Soviet tank was not easy. He had to crouch undetected until the tank passed close to his hiding place and then spring forward to attach a magnetic mine to the tank's hull or to disable the tank's tracks or engine with a grenade. In doing so, the soldier exposed himself to machine-gun fire from other tanks (which, naturally, were particularly alert for such attacks) and also risked being crushed by a suddenly swerving tank or even wounded by the explosion of his own antitank device. To facilitate the close assault of enemy tanks and to cloak the movements of the German infantry, some German units released smoke on their own positions as the enemy tanks closed. However, this tactic was dangerous, as such smoke interfered with aimed German fire against any Russian infantry and also tended to enhance the shock value of the menacing armor.[139] Protesting the

A drawing of German infantrymen attacking Soviet T-34 tanks with grenade clusters

Captured German War Art Collection

unbearable strain that infantry-versus-tank combat placed on German soldiers, the 7th Infantry Division stated bluntly in its report: "It is wrong to pin the success of antitank defense on the morale of the infantry." The 7th Division's report strongly advocated a thickening of forward antitank weapons, including the forward placement of 88-mm flak guns "to smash [Soviet] tank assaults *forward* of the German defensive line [italics in original]."[140]

German strongpoint tactics during the winter fighting increased the problems of antitank defense. Strongpoints were subject to attack from all directions, thereby complicating the siting of the relatively immobile German antitank guns. When attacking enemy armor, German infantrymen preferred the protection of continuous trenches, since these gave them a covered way to scuttle close to the tanks without undue risk of detection.[141] However, strongpoints—particularly those confined to villages—were difficult to camouflage. Therefore, Russian tanks could circle outside the defensive perimeter, blasting away at the German positions and probing for a weak spot, without fear of a surprise attack by hidden German infantry. In the same way, Soviet armored thrusts through the gaps between strongpoints also avoided the lurking German infantrymen. For this reason, many German commanders prepared connecting trenches between strongpoints solely to move infantry antitank teams into the path of bypassing Russian tanks.

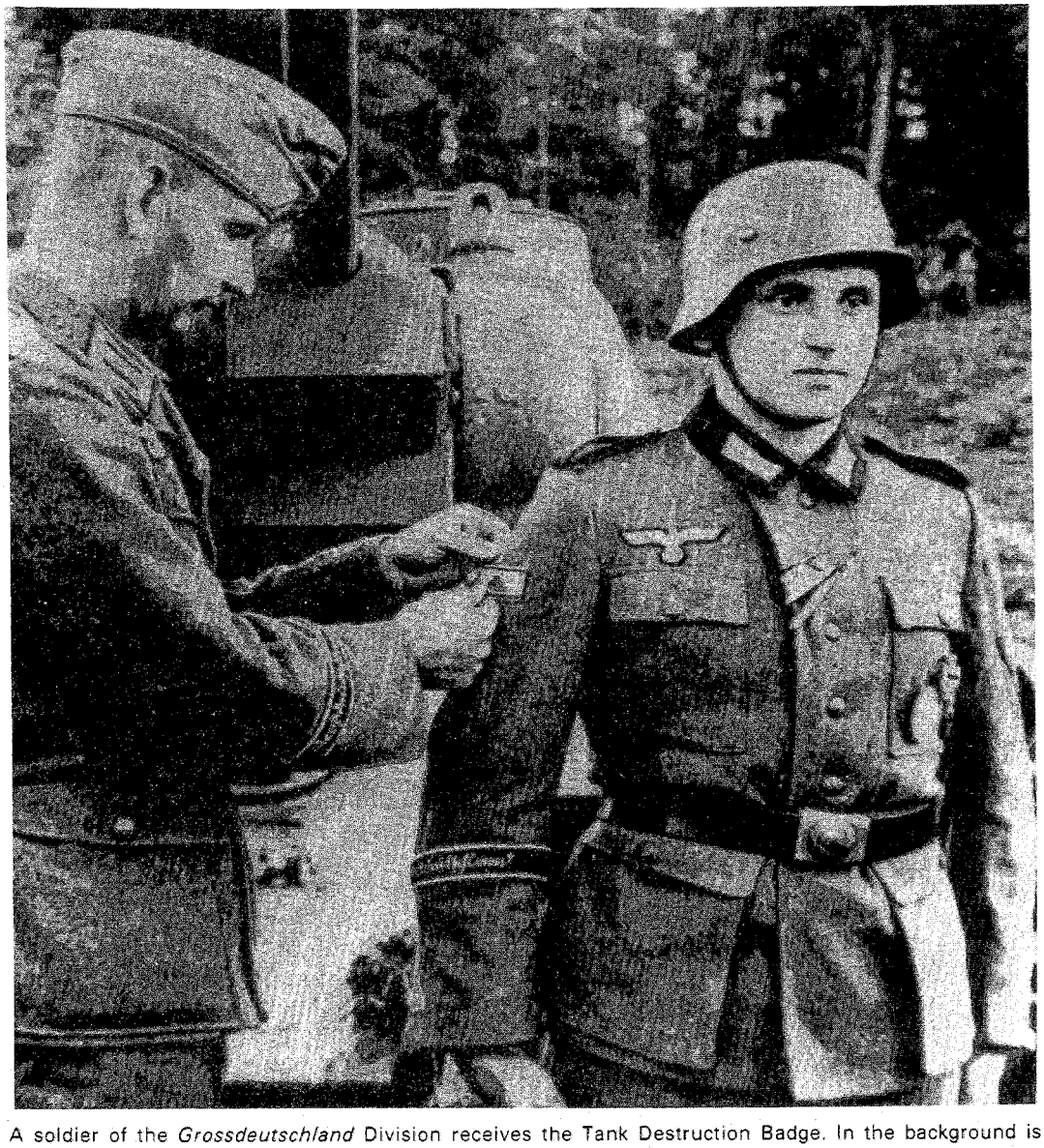
After nearly one year of brutal combat in Russia, antitank defense thus loomed as a major vulnerability in German defensive operations. German antitank guns lacked penetrating power and were relatively immobile. Soviet tank assaults exposed German infantrymen to terrific strain, both from the general likelihood of being overrun and from the necessity to combat Russian tanks with primitive hand-held weapons. If anything, the experiences of winter combat had shown that these difficulties were even greater then than during earlier battles. Fortunately for the Germans, the Soviets' tactical ineptitude and early tendency to disperse armor into small units spared the Germans even harsher trials.

Early combat reports, such as those ordered by Fourth Panzer Army, spurred adjustments to German antitank measures. Efforts to improve German antitank weaponry were greatly emphasized, resulting in the eventual introduction of heavier guns. The production of German self-propelled assault guns was also accelerated, partly in answer to the need for a more mobile antitank weapon. Moreover, new German tanks received heavier, high-velocity main guns capable of duelling the Soviet T-34s, and older-model German tanks were refitted with heavier cannon as well.[142]

Efforts to improve the German antitank capability went beyond technological remedies. Since it remained necessary in the short term to rely heavily on infantrymen (and, in some units, combat engineers) to destroy tanks in close combat, the German Army did its best to prepare German soldiers for that task. Various instructional pamphlets were printed giving detailed information on the vulnerabilities of Russian tanks and the most effective methods for disabling them. For example, in February 1942, the Second Army rushed a "Pamphlet for Tank Destruction Troops" to its own units even before the winter battles had subsided.[143] General Halder reviewed the reports of frontline units and conferred with the German Army's Training Branch on the preparation of a new manual on antitank defense.[144] Also, the

German leaders did not neglect the psychological dimension of antitank combat: beginning on 9 March 1942, soldiers who had single-handedly destroyed enemy tanks were authorized to wear a new Tank Destruction Badge, which helped improve morale.[145]

German combat reports also generated a great deal of interest in the strongpoint defensive system. The assessments culled by Fourth Panzer Army contained sharp differences of opinion on this point. The 252d Infantry Division dismissed the strongpoint methods, arguing that "village strongpoints [had] not proven themselves effective in the defense. After short concentrated



A soldier of the *Grossdeutschland* Division receives the Tank Destruction Badge. In the background is a Soviet T-34 tank.

bombardment they [exacted] heavy losses. A continuous defensive line [was] in every case superior to the strongpoint-style deployment." The 252d Division rejected the supposed strongpoint advantages, pointing out that "experiences with the strongpoint defense were muddy. . . . It did not prevent infiltration by enemy forces, especially at night. It [strongpoint defense] cost considerable blood and strength to destroy penetrating enemies by counterattack."[146] Other assessments were less harsh, conceding the value of strongpoints as an expedient measure. Though expressing a strong preference for a doctrinal linear defense in depth, the XX Corps grudgingly acknowledged the importance of strongpoints under certain conditions: "A continuous defense line is successful and strived for. A strongpoint-style defense may be necessary when insufficient forces are available for a continuous front. It is only tolerable for a limited time as an emergency expedient."[147]

Although no unit suggested a general adoption of strongpoint defensive measures over the Elastic Defense system, the widespread use of strongpoints seemingly warranted closer study. General Halder therefore decided on a formal investigation into the strongpoint issue. On 6 August 1942, the chief of the General Staff ordered a survey of frontline units on the terse question, "Strongpoints, or continuous linear defense?"[148] The purpose of this study was not to reach a consensus; rather, it was to seek information of doctrinal value from as many different sources as reasonably possible. Fourth Army, for example, submitted responses that were prepared by every subordinate corps and division commander and by most regimental and many battalion commanders as well.

The monographs returned as a result of General Halder's inquiry provided a thorough critical assessment of German defensive tactics during the previous winter. In practice, all German units had compromised doctrinal Elastic Defense methods to some extent, and most divisions had at least experimented with strongpoint measures. In their reports, the surveyed commanders argued the relative merits of the strongpoint system and tried to define precisely its advantages, disadvantages, and suitability for general defensive use.

Predictably, the most commonly cited advantages were the obvious ones of shelter and concentration of limited resources. However, several veteran officers also pointed out other less-obvious benefits of strongpoint warfare. Units disposed in strongpoints were more easily controlled than those arrayed in a linear defense, thus simplifying the leadership problems of the few remaining officers and NCOs.[149] Within strongpoints, wrote the commander of the 289th Infantry Regiment, even poorly trained soldiers could be kept under tight rein by their junior leaders.[150] Similarly, the chief of staff of the Second Army considered strongpoints beneficial to discipline and training, a vital matter since "the training status of the troops and the quality of the infantry junior leaders had noticeably declined."[151] Strongpoints also bolstered the sagging morale and pugnacity of individual soldiers: troops spread out in a linear defense tended to perceive themselves as solitary fighters and often were less steadfast under fire than those fighting in the close company of strongpoint garrisons. In this regard, the 331st Division expressed concern about its growing numbers of young and inexperienced replacements.[152]

Against these advantages, German officers listed the serious problems that, in their experience, had attended the use of strongpoints. Individual

strongpoints invited isolation and destruction in detail by superior Soviet forces. Since separated strongpoints had been unable to secure the German front against enemy penetrations, strong Russian forces had frequently managed to shoulder their way between strongpoints and deep into the German rear. Also, smaller Soviet infiltration parties had wrought havoc throughout the German defensive area. Because of the lack of doctrinal guidance, the use of nonstandard strongpoint tactics by some divisions had unintentionally exposed the flanks of neighboring formations deployed in a linear defense.[153]

Although German officers also found fault with their own occasional use of linear defenses, the faults were generally attributed to insufficient resources (excessively wide sectors, lack of depth, unavailability of mobile reserves). However, the systematic criticisms of the strongpoint style of defense pointed out inherent, fundamental flaws in the strongpoint concept. Strongpoints, in the view of German commanders, would *always* be subject to isolation, and Soviet forces would *always* be able to force passage between strongpoints, even if the Germans disposed of larger forces. These flaws cast into doubt Hitler's prediction that the mere control of villages and road junctions would arrest Soviet offensive momentum. As one divisional report delicately put it, this contention remained "unproven in practice."[154]

Consequently, German officer sentiment ran strongly against a general reliance on strongpoint defenses. To most German field commanders, a strongpoint system remained an emergency expedient prompted by the exceptional conditions of the 1941—42 winter campaign. In their answers to Halder's query, many leaders quickly pointed out that, as combat conditions had allowed, their units had abandoned their exclusive reliance on strongpoints in favor of more traditional methods. As one battalion commander explained: "Except as under the special conditions reigning during the 1941/42 winter campaign, one should reject the strongpoint system and strive for a continuous HKL [main line of resistance]. The strongpoint system can only be an emergency measure for a short time, and must form the framework for a continuous line as was the case during the winter."[155]

Some unit commanders, though firm in their endorsement of an orthodox defense in depth, expressed their intent to incorporate some strongpoints into any future defensive system. With the passing of winter, German divisions on the Eastern Front began organizing their positions, aided by the arrival of fresh divisions and a trickle of replacements. As this occurred, German lines increasingly resembled the Elastic Defense prescribed in *Truppenführung*. Within this burgeoning defense in depth, strongpoints were occasionally retained as combat outposts or, more commonly, as redoubts within the depth of the main battle zone. In contrast to the winter strongpoints, however, these positions generally were smaller and were knitted into the defensive system with connecting trenches. The XLIII Corps, summarizing the views of its subordinate divisions, saw nothing new in this: "The best style of defense is that laid down in *Truppenführung*—many small, irregularly-located nests, deployed in depth, composing a defensive *zone* whose forward edge constitutes the HKL [italics in original]."[156] In the overall context of German defensive doctrine, this addition of greater numbers of small strongpoints was relatively minor. (Small squad-size redoubts had been part of the original German Elastic

Defense as early as 1917, and a few officers even cited passages from *Truppenführung* allowing for such measures.[157])

The stream of winter after-action reports prepared by German units did not result in any major new doctrinal publications. Therefore, *Truppenführung* remained the German Army's basic doctrinal reference for defensive operations. In fact, after extensive study, the winter defensive crises were dismissed as products of extraordinary circumstances. The exceptional conditions of the previous winter—which, the Germans hoped, would not be repeated in the future—invalidated any general doctrinal judgments that might otherwise have been made. Furthermore, any hasty revision of German defensive doctrine would have seemed, in the summer of 1942, to be a superfluous and even a defeatist gesture. While General Halder and other members of the General Staff sifted through the grim after-action reports about the winter fighting, German armies were again on the march in Russia. On 5 April 1942, Hitler ordered preparations for a new German summer offensive to win the war in the east in one more blitzkrieg campaign.